# INDEX OF ABSTRACTS
## Volume 13, 1966


Aalto, S. K. Reduction of Fredholm integral equations with Green's function kernels to Volterra equations, 477.

Aanderaa, S. O. A reduction method for special cases of the decision problem, 261; Relation between different systems of modal logic, 391; Some recursively undecidable problems in automata theory and quantification theory, 509; On limits of simultaneous polynomial iterations. Preliminary report, 643.

_____. See Cook, S. A.

Abian, Alexander. Aleph limit points of sets of transfinite dyadic sequences, 507; Aleph topologies for the space of transfinite dyadic sequences, 640; Some theorems concerning aleph topologies of the space of transfinite dyadic sequences, 714.

Abian, Alexander. See LaMaccia, Samuel.

Abian, Alexander and Deever, David. On representation of partially ordered sets, 139; On the minimal length of sequences representing simply ordered sets, 256; On the bounds of the minimal length of sequences representing simply ordered sets, 378.

Abian, Alexander and LaMacchia, Samuel. Examples of generalized Sheffer functions, 390.

Ablow, C. M., McCulley, L. D. and Rajapakse, Y. D. S. Oscillatory spherical progressive waves, 832.

Adams, R. and Aronszajn, Nachman. Bessel potentials on regular manifolds, 609.

Adams, W. W. Asymptotic diophantine approximations to e, 350.

Ahern, Patrick and Sarason, Donald. Representing measures for function algebras, 95.

Ahlberg, J. H., Nilson, E. N. and Walsh, J. L. Convergence properties of cubic splines, 140; Complex cubic splines, 231.

Akemann, C. A. The dual space of an operator algebra. Preliminary report, 239; Some mapping properties of the group algebras of a compact group, 638.

Alford, W. R. Cantor sets in Euclidean three space, 252.

_____. See Sher, R. B.

Allen, Howard. Cohomology and Banach algebras. Preliminary report, 640.

Allen, J. E. Inverse star envelope of a subset of a LTS, 373.

Al-Salam, W. A. Fractional q-integration and q-differentiation, 243.

Alvarez, L. R. Undirected graphs realizable as graphs of semimodular lattices, 116.

Ames, W. F. See Jones, S. E.

Anderson, J. M. See Peinado, R. E.

Anderson, R. D. On extending homeomorphisms on the Hilbert cube, 375.

Andrews, G. E. New partition theorems of the Rogers-Ramanujan type, 723.

Angotti, Rodney. On the geometric invariants which characterize a group, 586.

Anvari, Morteza, A topology on a measure space, 469.

Appel, K. I. No r.e. set is the union of finitely many immune retraceable sets, 489; There exist two regressive sets whose intersection is not regressive, 732.

Appling, W. D. L. Concerning some characterizations of absolute continuity, 145; Concerning a certain linear integral equation, 385; A note on the finite additivity of certain set functions, 718; A note on a nonlinear integral equation, 857.

Ar, Ergun. On the solution of Kleinman's equation in a Banach space, 835.

Aranda, P. J., Cattaneo, E. P. and Sadosky, Cora. On quasi-homogeneous potential operators, 261.

Arkowitz, M. A. and Curjel, C. R. Some results on H-maps. Preliminary report, 366.

Armentrout, Steve. Concerning a wild 3-cell described by Bing, 108; Cellular decompositions of 3-manifolds that yield 3-manifolds, 374.

Armentrout, Steve, Lininger, L. L. and Meyer, D. V. Equivalent decompositions of $E^3$, 57.

Arnold, J. T. and Gilmer, R. W. Jr. Prüfer domains and integral extensions. Preliminary report 817.

Arnold, L. K. On sigma-finite invariant measures. Preliminary report, 326; A transformation with no invariant measure, 491.

Aronson, D. G. and Serrin, James. A Harnack inequality for nonlinear parabolic equations, 381.

Aronszajn, Nachman. Extension of unbounded operators in a Hilbert space, 238.

_____. See Adams, R.

_____. See Brown, R. D.

Aronszajn, Nachman and Szeptycki, Pawel. On compatibility of extensions of semiregular integral transformations, 241.

Arraut, J. L. Nota sobre primeras integrales, 851.

Arsove, M. G. Intrinsic characterization of regions bounded by closed curves, 831; Some boundary properties of the Riemann mapping function, 837.

Arsove, M. G. and Huber, Alfred. On the existence of nontangential limits of subharmonic functions, 367.

Artzy, Rafael. Noneuclidean incidence planes. II, 76.

Asenjo, F. G. Rings of term-relation numbers as nonstandard models, 711.

Aull, C. E. A closed set axiom of countability, 61; Some metrization theorems, 381; Compactness as a base axiom, 589.

Axt, Paul and Singletary, W. Decision problems for monogenic post normal systems, 849.

Azpeitia, A. G. Linear separability of switching functions, 338.

Bachmuth, Seymour and Hughes, I. Centers of certain presentations of finite groups, 576.

Bachmuth, Seymour and Mochizuki, H. Y. Ideals and automorphism of metabelian groups, 330.

Baker, H. L., Jr. Complete amonotonic decompositions of continua, 375.

Balbes, Raymond. Projective and injective distributive lattices, 740.

Balbes, Raymond and Horn, Alfred. Order sums of distributive lattices, 738.

Baldwin, J. G. Some aspects of uniform recurrence, 348; The degree of markovity of a stochastic process, 617.

Banks, H. T. A maximum principle for control problem with constant time lags. Preliminary report, 736.

Barback, Joseph. Remarks on regressive upper bounds. Preliminary report, 737.

Barnes, W. E. Primary decompositions of ideals in gamma-rings, 476.

Barnett, I. A. See Rolwing, R. H.

Barnhill, R. E. Error analysis for multiple integrals, 723.

Baron, Stephen. Reflective subcategories of colocally small categories, 609.

Barwise, Jon. Logical validity in languages with metafinite formulas, 730; Axiomatic theories in metafinite logic, 855.

Bastel, H. R. See Charmonman, Srisakdi.

Baxter, Glen. A necessary condition for 4-coloring a planar graph, 486.

Baxter, W. E. A polynomial identity for symmetric elements and commutativity. Preliminary report, 494.

Baxter, W. E. and Haeussler, E. F. Generating submodules in simple rings with involution, 238.

Baxter, W. E. and Martindale, W. S. Symmetric elements satisfying a polynomial identity. Preliminary report, 722.

Bear, H. S. Topologies of the Šilov boundary and equicontinuity in function spaces, 600.

Bear, H. S. and Gleason, A. M. An integral formula for abstract harmonic or parabolic functions, 348.

Bear, H. S. and Weiss, M. L. An intrinsic metric for parts, 836.

Beaumont, R. A. Abelian groups which are determined by their group of mappings, 351.

Bechtell, H. F. A note on solvable K-groups, 332.

Beck, Anatole. The linear search problem, 341.

Beckenstein, Edward. On regular nonarchimedian Banach algebras, 388.

Beidleman, J. C. On prime distributively generated near-rings, 69.

Beineke, L. W. and Plummer, M. D. On 1-factors in nonseparable graphs, 116.

Beldin, D. R. Some analysis on compact groups, 100.

Belluce, L. P. Rings with a polynomial constraint, 645.

Beltrami, E. J. A time domain characterization of linear scattering systems, 329.

Bender, E. A. The minimum dimension of symmetric matrices with a given root, 242; Characteristic polynomials of symmetric matrices, 489.

Benes, V. E. Existence of finite invariant measures for Markov processes, 580.

Ben-Israel, Adi. On the Newton-Raphson method for systems of equations, 344; On error bounds for generalized inverses, 473; A note on the Cayley transform, 599.

Bennett, R. B. Selfreproductive sets, 102.

Benson, C. T. Two nonisomorphic $(v,k,\lambda)$ designs with similar incidence matrices, 249.

_____. See Mendelsohn, N. S.

Benson, D. C. Inequalities involving integrals of functions and their derivatives, 602.

Benton, S. H. Minimal extensions of Hausdorff and regular spaces, 626.

Bentsen, Irving. The existence of solutions for abstract partial difference polynomials, 643.

Berenstein, C. A. Remarks on the method of interpolation by functional quasinorms, 503.

Berger, M. S. On the spectrum of nonlinear elliptic partial differential equations, 603.

Berin, Al. Extension of an Euler transformation process. Preliminary report, 148.

Bernardi, S. D. Special classes of subordinate functions, 480; Convex and starlike univalent functions, 619.

Berthiaume, Pierre. The injective envelope in the category of semigroup, 502.

Bessaga, Czeslaw. See Klee, Victor.

Bethel, E. L. On reducibility of continua, 52; Concerning continuous collections of mutually exclusive continua, 364.

Beyer, W. A. and Heller, Leon. Analytic continuation of Laplace transforms by means of asymptotic series, 340.

Bharucha-Reid, A. T. See Seidman, T. I.

Bhatia, N. P. An oscillation theorem, 243.

Birtel, F. T. Slice algebras of bounded analytic functions. Preliminary report, 234.

Blake, R. G. Fourier sine and cosine transforms of distributions, 824.

Block, R. E. On the orbits of collineation groups, 848.

Bogdanowicz, W. M. An approach to the theory of integration generated by positive linear functionals, 84; A necessary and sufficient condition for two volume spaces to generate the same space of Lebesgue-Bochner summable functions, 327; A Baire type characterization of Lebesgue-Bochner measurable functions, 364; Existence and characteristic properties of maximal and minimal volume spaces generating the same integration as a given volume, 480; Vectorial integration and extensions of vector measures, 586.

Bogdanowicz, W. M. and Welch, John. Existence and uniqueness of extension of vector-volumes with finite q-variation to measures, 596; Vectorial integration in $L_p$-spaces of Bochner summable functions and extensions of vector volumes to measures with finite q-variation, 636.

Bogdanowicz, W. M. and Sullivan, R. H. Vectorial integration generated by finite additive vector measures, 89; An approach to the theory of $L_p$ spaces of vector-valued functions generated by finite-additive measures, 614.

Bohun-Chudyniv, Volodymyr. On the generalized (double) triple-systems with some applications, 337; On generalized n-tuple systems and generalized double n-tuple systems with some applications, 617.

Bojanic, Ranko. An elementary proof of the uniqueness theorem in the theory of best $L_1$-approximation, 359.

Bojanic, Ranko and DeVore, R. H. On polynomials of best one sided approximation, 251.

Bollman, D. A. Formal nonassociative number theory, 724.

Bonsall, F. F., Lindenstrauss, Joram and Phelps, R. R. Extreme positive operators on algebras of functions, 73.

Borges, C. R. A note on a problem of Mrówka, 502; Continuous extensions, 727; Topological properties preserved by multi-valued functions, 856.

Borrego, J. T. Homomorphic retractions in compact semigroups. Preliminary report, 81.

Bose, A. K. An extension of weighted average property, 90; A mean value characterisation of elliptic equations with real constant coefficients, 816.

Bose, R. C. A theorem on regular graphs, 505.

Bose, R. C. and Laskar, Renu. A characterization of tetrahedral graphs, 505.

Boullion, T. L. and Odell, P. L. A generalization of the Wielandt inequality, 369.

Boylan, E. S. Stability theorems for solutions to the optimal inventory equations, 595.

Brace, J. W. See Nielsen, R. M.

Bradford, Robert. Undecidability of the elementary theory of Dedekind cardinal addition, 499.

Bradley, G. L. On the set of eigenvalues of a class of equimodular matrices, 624.

Bragg, L. R. The radial heat equation and Laplace transforms, 103.

Brauer, A. T. and Rohrbach, Hans. On an irreducibility criterion of Perron, 827.

Bredon, G. E. Equivariant cohomology theory, 354.

Bridgland, T. F., Jr. and Hinkel, J. S. The minimum miss distance problem 818.

Brothers, J. E. Quasi-normal currents having normal plane intersections, 92.

Browder, F. E. Infinite dimensional manifolds and nonlinear elliptic eigenvalue problems, 124.

Brown, H. I. and Fridy, J. A. Regrouping methods and the basis in summability, 588.

Brown, J. R. Existence of invariant measures for Markov operators, 355.

Brown, L. F. Remarks on span spaces. Preliminary report, 605.

Brown, R. B. and Gray, Alfred. Vector cross products, 835.

Brown, R. D. and Aronszajn, Nachman. Finite dimensional perturbations of spectral systems, 240; Finite dimensional perturbations of self adjoint operators, 610.

Brown, R. F. Fixed points and fibre maps, 80; On maps with identical fixed point sets, 831.

Brown, T. J. An axiomatization of N-partition geometries, 56.

Brualdi, R. A., Parter, S. V. and Schneider, Hans. Every fully indecomposable matrix is diagonally equivalent to a doubly stochastic matrix, 237; Nonnegative matrices diagonally equivalent to row stochastic matrices, 362.

Bruck, R. H. Spreads of finite projective 3-space, 119.

Buckholtz, J. D. Sums of powers of complex numbers, 372.

Bucy, R. S. Linear positive machines, 138; Existence and uniqueness theorems for two-point boundary value problems of linear Hamiltonian type, 637.

_____. See Maltese, G. J.

Bumby, R. T. Some diophantine equations. Preliminary report, 580.

Burgess, C. E. Cellular decompositions of $E^3$ which have only countably many nondegenerate elements, 112; Conditions which imply that a 2-sphere in S is locally tame except at two points, 347.

Burkholder, D. L. Local weak norms and almost everywhere convergence, 262.

Buschman, R. G. and Wunderlich, M. C. 2nd term approximations of sieve generated sequences, 63.

Busenberg, Stavros. See DeCicco, John.

Butler, J. B., Jr. On the inverse problem corresponding to certain ordinary even order differential operators. Preliminary report, 142.

Butt, Shu-Shih H. On maximal nondetermining subalgebras of group algebras, 860.

Butts, H. S. See Smith, W. W.

Calabi, Lorenzo. A semigroup is free iff it is projective, 720.

Calabi, Lorenzo and Hartnett, W. E. Extension to nonconvex, closed sets of Motzkin's theorem on convexity, 498.

Calabrese, Philip. The Menger algebras of two-place functions in the two-valued logic, 630.

Callahan, F. P. A direct proof that SO(3) is homomorphic to SU(2), 229; Uniqueness of the cross product, 613.

Canals, Ignacio. Generalización del concepto de algebricidad sobre campos valuados completos, 851.

Cantrell, J. C. and Lacher, R. C. Taming cells in the n-sphere. II. Preliminary report, 616; Taming cells in the n-sphere. I. Preliminary report, 644.

Cargo, D. P. and Schweizer, Berthold. Subhomomorphisms in function semigroups. Preliminary report, 613.

Carlson, David. On some determinantal inequalities, 833.

Carroll, Robert. Some growth and convexity theorems for second order equations, 138.

Carruth, J. H. On partially ordered compacta, 827.

Carter, D. S. The exponential of a measure space, 471.

Cassity, C. R. Two integration formulas of modified Runge-Kutta type, 339.

Catlin, D. E. Implicative pairs in orthomodular lattices, 66.

Cattaneo, E. P. See Aranda, P. J.

Causey, W. M. The univalence of an integral, 128; The univalence of an integral. II, 231; On the univalence of an integral, 390.

Ceder, J. G. and Pearson, T. On products of maximally resolvable spaces, 840.

Ceder, J. G. and Weiss, M. L. Some inbetween theorems for Darboux functions, 324.

Celeste, V. R. Integration over fields with a nonarchimedean valuation, 491; Algebras of measures over fields with a nonarchimedian valuation, 635.

Chaffee, Nathaniel. The bifurcation of an equilibrium point into a closed orbit, 341.

Chaitin, G. J. On the length of programs for computing finite binary sequences by bounded-transfer Turing machines. Preliminary report, 133; On the length of programs for computing finite binary sequences by bounded-transfer Turing machines. II, 228.

Chak, M. An extension of a class of polynomials, 610.

Chalmers, B. L. On boundary behavior of Bergman's kernel function in the theory of two complex variables, 495.

Chamberlain, E. W. The univalence of functions asymptotic to nonconstant logarithmic monomials, 102.

Chandy, A. J. The near-ring generated by the inner automorphisms of a group, 109.

Chaney, Robin. Some theorems concerning the class of weight functions in the transformation theory for measure space, 57; The chain rule in the transformation theory for measure space, 354; Some convergence theorems connected with the transformation of integrals in measure space, 478; Concerning a chain rule in the transformation theory for measure space, 614.

Charlton, H. J. Transformations preserving tame sets, 508.

Charmonman, Srisakdi and Bastel, H. R. Eigenvalue problems of a $2n \times 2n$ matrix, 336.

Ching, Wai-Mee and Wong, J. S. W. Multipliers and H*-algebras, 584.

Chow, Y. S. and Robbins, H. E. On optimal stopping for Markov processes, 121.

Chrislock, J. L. Finitely generated N-semigroups, 149.

____. See Tamura, Takayuki.

Chu, S. C. and Moyer, R. D. On continuous functions, commuting functions, and fixed points, 252.

Church, Alonzo. Reduction of the Monge-Ampère equation, 730.

Clark, C. W. Inequalities of Poincaré type, 386.

Clark, W. E. Weakly semisimple finite dimensional algebras, 98; Baer rings which arise from certain transitive graphs, 823.

Clemens, C. H., Jr. Picard-Lefschetz theorem for families of algebraic varieties acquiring certain singularities, 483.

Clements, G. F. On a min-max problem of Leo Moser, 102.

Cline, Edward. An embedding property of generalized Carter subgroups, 112.

Coburn, L. A. and Lebow, Arnold. Algebraic theory of Fredholm operators, 110.

Coffman, C. V. and Ullrich, D. F. On the continuation of solutions of a certain nonlinear differential equation, 816.

Cohen, E. L. On the sum of the squares of two consecutive numbers, 245; On the sum of the squares of two consecutive numbers, 741.

Cohen, Haskell and Koch, R. J. Noneuclidean points in sphere-like spaces, 628.

Coifman, R. and Weiss, G. L. A factorization theorem for functions in the Nevanlinna class of a multiply connected domain, 384.

Colby, R. R. Indecomposable modules over rings with minimum condition, 71.

Collins, G. E. Subresultants and reduced polynomial remainder sequences, 248.

Colwell, Peter. On the boundary behavior of functions meromorphic in the unit disk, 139.

Combrink, C. R. The Baer radical of the standard wreath product, 487.

Conner, H. E. Almost sure convergence of spatial averages for a branching process of Brownian particles, 482.

Conner, P. E. and Floyd, E. E. Bordism and complex K-theory, 145.

Conner, P. E. and Landweber, P. S. Bordism classes of SU-manifolds, 713.

Conner, A. C. Normal monotone mappings, 342; Locally cyclic continua. I, 373; Locally cyclic continua. II, 482; A stable solution to the annulus conjecture, 620.

Conway, E. D. Linear equations with discontinuous coefficients and the uniqueness problem for quasi-linear conservation laws, 586.

Conway, E. D. and Smoller, J. A. Global solution of the Cauchy problem for quasi-linear first order equations in several space variables, 96.

Conway, W. E. The vertical jet under gravity, 61.

Cook, Howard. Solution of a problem of R. D. Anderson, 371.

Cook, S. A. Rapid calculation by Turing machine, 389.

Cook, S. A. and Aanderaa, S. O. A negative result concerning on-line Turing machine multiplication, 636.

Cook, T. A. Semireflexivity and Schauder decompositions. Preliminary report, 822.

Corson, Harry. A type of decomposition of S, 846.

Crabtree, D. E. Characteristic roots of M-matrices, 104.

Craggs, R. F. Isotopies of 2-spheres in 3-manifolds, 370.

Craig, William and Galvin, Fred. A satisfiability theorem for properties preserved under direct product, 624.

Crapo, H. H. The Tutte polynomial, 128.

Crawford, J. P. Summation of bounded divergent sequences and the second adjoint matrix, 339.

Creese, T. M. On the uniform convergence of the modulus of a Blaschke product, 608.

Crownover, R. M. Quasi-open maps in uniform algebras, 258.

Cullen, C. G. and Hall, C. A. Functions on semisimple algebra, 56.

Curjel, C. R. See Arkowitz, M. A.

Curtis, D. W. and Mathews, J. C. Generalized R-uniformities, 253.

Cusick, T. W. Analogue of a theorem of Khintchine in a field of formal Laurent series, 136.

Dancis, Jerome. Locally-flat and locally-tame embeddings, 371; On locally-flat embeddings of manifolds. Preliminary report, 833.

Darwin, J. T., Jr. A representation for continuous linear operators on C, 375; On a new class of functions, 501.

Dauns, John and Hofmann, K. H. The representation of biregular rings by sheaves, 380.

Davis, A. S. The algebraic theory of direct and inverse image, 847.

Davis, E. B. Bounds for functions holomorphic in analytic polyhedra. II. Preliminary report, 55; On meromorphic functions of two complex variables, 493.

Davis, R. D. Concerning the sides from which certain sequences of arcs converge to a compact irreducible continuum, 360.

Davis, W. J. Positive bases in Banach spaces, 595.

Davis, W. J. and Dean, D. W. Direct sums of Banach spaces with respect to a basis. I, 82; Direct sums of Banach spaces with respect to a basis. II, 82.

Dawson, D. A. An approximation theorem for analytic diffusions, 726.

Dawson, D. F. Linear methods which sum sequences of bounded variation, 144; On subgroups of semigroups, 258; Remarks on some convergence conditions for continued fractions, 366; Matrix summability over certain classes of sequences ordered with respect to rate of convergence, 839.

Day, J. M. and Franklin, S. P. Spaces of continuous relations, 110.

Dean, D. W. Schauder decompositions in (m), 338.

_____. See Davis, W. J.

De Christ, Sylvia. El transfer en los grupos de Whitehead, 851.

DeCicco, John and Busenberg, Stavros. Some properties of a generalized Schwarzian derivative of a polygenic function, 134; Conformal properties of the inversive arc length, 743.

DeCicco, John and Roelle, Thomas. Some extensions to lineal element theory of evolutes and involutes, 735; Some geometrical properties of equitangential, isogonal, and whirl series, 858.

Deeds, J. B. The Stone-Čech operator and its associated functionals. Preliminary report, 78; On weak periodicity, 841.

Deever, D. L. Sets of transfinite dyadic sequences without aleph limit points, 742.

_____. See Abian Alexander.

DeFigueiredo, D. G. Fixed point theorems and Galerkin approximations, 498.

DeLeon, M. J. Some Diophantine equations, 641.

Deliyannis, P. C. Group representations and cardinal algebras, 238.

DeMar, R. F. A theorem applicable to the Whittaker W problem, 85.

Deming, R. W. The edge-path group and Čech homology groups of a generalized uniform space, 91.

Dennis, J. E. Application of fixed point principles to solutions of P(x) = 0, 365.

DeNoya, L. E. On the permutability of certain operators in topological spaces, 73.

Derry, Douglas. Inflection hyperplanes of polygons, 355.

DeVito, C. L. A sufficient condition for a locally convex space to be Mackey quasi-complete, 861.

DeVore, R. H. See Bojanic, Ranko.

Dickman, R. F., Jr. An extension of Eilenberg's characterization of unicoherence by exponential representation of mappings into the circle, 825.

Dickson, S. E. Decomposition of modules. II; Rings without chain conditions, 251.

Diem, J. E. and Wright, F. B. Real characters and the radical of an abelian group, 844.

Dilworth, R. P. Contiguous mappings of partially ordered sets, 470.

Donaldson, J. A. Some new identities for the modified Bessel function, 91.

Doner, J. E. Decidability of locally free algebras with unary operations, 634.

Dorroh, J. R. Some properties of a partial differential operator, 65; Semigroups of maps in a locally compact space, 820.

Douglas, R. R. Homotopy-commutativity in H-spaces, 77.

Driver, R. D. and Norris, M. J. Note on uniqueness for a one-dimensional two-body problem of classical electrodynamics, 616.

Duffin, R. J. and Karlovitz, L. A. Formulation of linear programs in analysis. I: approximation theory, 609.

Duffin, R. J. and McLain, D. K. Optimum shape for a cooling fin on a convex cylinder, 608.

DuPré, A. M. Continuously split extensions of locally compact groups, 469.

Durbin, J. R. Commutativity and n-abelian groups, 733.

Dutta, Mahadev. Symmetries of higher order and their invariance, 712.

Dutta, Mahadev and Ganguli, S. On topology of

space of Laplace transformable functions, 602.

Dutta, Mahadev and Sen, M. On application of information theoretic notions in number theory, 644.

Dwinger, Philip. Results in Post algebras, 105.

Dwinger, Philip and Weinzweig, A. I. On quotients of functors, 593.

Dyer, M. N. On the influence of $\pi_1(Y)$ on the homology groups of M(X,Y), 602.

Effros, E. G. Structure in simplexes, 618.

Eisenberg, Murray. Positively expansive endomorphisms of compact groups, 333; On certain universal minimal transformation groups. Preliminary report, 711.

Eldridge, K. E. D.C.C. rings with finitely many zero divisors, 77; Simple groups which are subgroups of linear groups. Preliminary report, 826.

____. See Fischer, Irwin.

Engert, Martin. A characterization of differential operators, 68.

Engle, R. D. See Gross, Herbert.

Enneking, M. A. Ideal decompositions in $\Gamma$-rings. Preliminary report, 489.

Etgen, G. J. Cyclicly related differential systems, 86; A note on trigonometric matrices, 582.

Evans, J. W. See Lynn, M. S.

Fast, Henryk. Some integral-geometric uniqueness theorem. Preliminary report, 58.

Fattorini, H. O. Differential equations in linear topological spaces. I, 734.

Fefferman, Charles. A generalization of the Radon-Nikodym theorem, 484.

Fefferman, Solomon. Completeness properties of systems of ordinal representations, 734; Categorical and effectiveness properties of systems of ordinal representations, 856.

Feldstein, M. A. Asymptotic error conjecture for retarded ordinary differential equations, 111.

Ferguson, L. O. Uniform approximation by polynomials with integral coefficients. Preliminary report, 67.

Fields, J. L. Confluent expansions, 357.

Fife, P. C. Uniqueness for the Dirichlet problem in an unbounded domain, and related problems, 113.

Figà-Talamanca, Alessandro and Rider, Daniel. A theorem on random Fourier series on noncommutative groups, 345.

Fillmore, J. P. Coefficients of the Hilbert-Samuel polynomial for complete intersection, 95.

Fink, A. M. Zeroes of a second order linear differential equation, 635.

Fischer, Irwin and Eldridge, K. E. Artinean rings with a cyclic quasi-regular group, 585.

Fisher, M. J. An $L^2$-theory for singular integrals in Hilbert space, 599.

Fleischman, William. Normal spaces for which C(X) = R. Preliminary report, 842.

Fleming, R. J. Some characterizations of semi-reflexivity and quasi-reflexivity. Preliminary report, 822.

Fletcher, Peter. Spaces with pointwise fixed closed sets, 714.

Florence, J. B. Infinite recursively enumerable classes with any finite number of infinite recursively enumerable subclasses, 494.

Floyd, E. E. See Conner, P. E.

Forelli, Frank. Analytic measures, 364.

Frame, J. S. Orthogonal group matrices of hyperoctahedral groups, 147; Continued fractions in stability theory. Preliminary report, 597.

Frank, David. The piecewise linear J-homomorphism and the smoothing problem, 848.

Frank, T. G. Error bounds on numerical solutions of Dirichlet problems for quasilinear elliptic equations, 496.

Franklin, S. P. See Day, J. M.

Frascella, W. J. The construction of a Steiner triple system on sets of the power of the continuum without the axiom of choice, 615.

Frederickson, P. O. Abel's formula for Cesàro summability, 583.

Freeman, R. S. On the resolvent set and spectrum of homogeneous elliptic differential operators with constant coefficients, 103.

Freidberg, Michael and Mahavier, W. S. Semigroups on chainable and circle-like continua, 629.

Friday, J. A. See Brown, H. I.

Friedberg, S. H. Synthetic partitions for the integers. Preliminary report, 626.

Friedman, H. M. Model theory of ranks and orders, 261; Strength of certain set theories, 391; Strength of certain set theories, 494; Strength of certain set theories. III, 645; On subsystems of analysis, 740.

Friedman, N. A. and Katz, M. L. A representation theorem for additive functionals, 504.

Fulkerson, D. R. and Gross, O. A. Incidence matrices and interval graphs, 119.

Fulp, R. O. Generalized semigroup kernels. I, 591.

Fusaro, B. A. A nonuniqueness result for a generalization of the Euler-Poisson-Darboux (EPD) problem, 53; A uniqueness theorem for a singular Cauchy problem for a generalized Euler-Poisson-Darboux equation, 826.

Gabriel, Peter and Oberst, Ulrich. Spectral categories and V. Neumann regular rings, 54.

Gaines, Fergus. On the Kato-Taussky-Wielandt commutator relation. Preliminary report, 498; A generalization of matrix commutativity. Preliminary report, 621.

Galvin, Fred. See Craig, William.

Ganea, Theodor. Induced fibrations and cofibrations, 328; On the homogeneity of infinite products of manifolds, 356; On the spectral sequence of the generalized homotopy suspension, 475; On the loop spaces of projective spaces, 845.

Gangolli, R. A. On a class of random walks and certain function algebras associated with them, 122.

Ganguli, S. See Dutta, Mahadev.

Gardner, L. T. The atomic representation of a C*-algebra, 829.

Gauthier, Paul. Holomorphic functions bounded on a spiral, 742.

Gay, D. A. On representations of the Weyl group, 235.

Germansky, Baruch. On the concept of a function $\phi$ on a set S into the same set, 383; An exact description of the concepts class and set, 504.

Gershuni, B. On the general solution of the axiom $P^2$ of Peano, 641.

Geyer, E. P. and Reay, J. R. Intersectional bases of convex cones, 74.

Ghaffari, Abolghassem. Association of calculus of variations with dynamic programming, 94.

Giffen, C. H. Homeotopy groups of fibered knots and links, 327; Homeotopy groups of 3-manifolds which fiber over a circle, 385.

Gilbert, G. G. An isomorphism theorem for polynomial quotient rings, 722.

Gil de Lamadrid, Jesús. Representations of topologically simple Banach algebra, 365; Representation of algebras with involution. Preliminary report, 840.

Gillman, D. S. A five circle decomposition of 3-space, 594.

Gilmer, R. W., Jr. Some basic properties of polynomials over a commutative ring. Preliminary report, 133; On overrings of Prüfer domains. II. Preliminary report, 350; A note on the quotient field of the domain D||X||. Preliminary report, 816.

_____. See Arnold, J. T.

Gilmer, R. W., Jr. and Heinzer, W. J. Primary ideals and valuation ideals. II. Preliminary report, 818.

Ginsburg, Seymour, Greibach, S. A. and Harrison, M. A. One-way stack automata. I, 382; One-way stack automata. II, 479.

Gitler, Samuel. Las variedades de Stiefel proyectivas, 852.

Gleason, A. M. See Bear, H. S.

Glickfeld, B. W. A characterization of B*-algebras. Preliminary report, 52.

Glynn, W. A. Strictly convex metrics, 98.

Goes, Gunther. Periodic and semiperiodic sequences and Fourier-Stieltjes transforms of discrete measures, 247.

Goffman, Casper. Linear continuity and approximate continuity, 642.

Goldberg, Michael. Axially symmetric packing of equal circles on a sphere, 588.

Goldberg, R. R. and Simon, A. B. Characterization of some classes of measures, 842; The Riemann-Lebesgue Theorem on groups, 843.

Goldberg, Seymour and Schubert, Cedric. Some applications of the theory of unbounded operators to ordinary differential equations, 99.

Goldman, J. R. Stochastic point processes in $R^n$: Limit theorems, 115; Infinitely divisible point processes in $R^n$, 145.

Goldstein, A. A. Descent on the boundary of a sphere, 346.

Goldstein, Myron. Analytic Schottky differentials, 76; Extreme points in the set of adjoints of Sario operators, 829.

Goldstein, R. A. Equality of minimal and maximal extensions of a partial differential operator in $L_p(R^n)$, 142.

Gonshor, Harry. Injective hulls of commutative C*-algebras, 599.

Goodman, A. W. On the convexity of level curves of a polynomial, 60.

Goodman, Roe. On localization and domains of uniqueness, 344.

Goodrick, R. E. A note on Seifert circles, 365.

Gould, H. W. The bracket function, q-binomial coefficients, and some new Stirling number formulas, 482.

Gould, M. I. Multiplicity type and subalgebra structure in universal algebras. I, 860.

Gould, M. I. and Grätzer, G. A. Boolean exten-

sions and normal subdirect powers of finite universal algebras, 333.

Granirer, E. E. Multiplicative invariant means on subalgebras of m(S), 474.

Grätzer, G. A. Congruence relations on partial algebras, 146; On direct and inverse limits of universal algebras, 233; On the spectrum of classes of algebras. Preliminary report, 331; On the spectrum of classes of algebras. Preliminary report, 376; On bases of infinitary algebras, 592; Equivalence relations of cardinals induced by equational classes of infinitary algebras, 632.

____. See Gould, M. I.

Gray, Alfred. See Brown, R. B.

Gray, Alfred and Shah, S. M. Holomorphic functions with gap power series. III, 75.

Gray, Neil. In the hyperspace of a Peano continuum every point is unstable. Preliminary report, 606.

Greechie, R. J. On the structure of finite orthomodular lattices, 243.

Greenleaf, F. P. Følner conditions for locally compact groups, 581.

Greenlee, W. M. Singular perturbation, a rate of convergence theorem, 735.

Greenspan, Donald and Silverman, Edward. Approximate solution of the exterior Dirichlet problem and the calculation of electrostatic capacity, 72.

Greese, T. M. On the uniform convergence of the modulus of a Blaschke product. II, 838.

Greever, John. On spaces in which every closed set is a $G_\delta$, 843.

Gref, L. G. Consequences of the Jordan curve theorem, 89.

Gregorac, R. J. Embedding finite nilpotent amalgams, 733.

Greibach, S. A. See Ginsburg, Seymour.

Greville, T. N. E. On the generalized inverse of a matrix product, 255.

Grillet, P.-A. On cancellative and abelian congruences in semigroups and groupoids, 105.

Grilliot, T. J. Extensions of algebra homomorphisms, 600; Recursive functions of higher types. I. Preliminary report, 638.

Grimm, L. J. and Harris, W. A. Jr. General solutions of nonlinear difference equations, 70.

Gross, Fred. Factorization of periodic functions, 251.

Gross, Herbert. On Witt's theorem in the denumerable case, 126.

Gross, Herbert and Engle, R. D. Bilinear forms in the denumerable case and characteristic 2, 127.

Gross, O. A. See Fulkerson, D. R.

Grossberg, Stephen. Postulates for a nonlinear, nonmarkov, and nonstationary prediction theory, 637.

Grossman, Nathaniel. A polar Morse function for Riemannian manifolds of pinching greater than 1/4, 93.

Grosswald, Emil. A property of the Riesz function, 244; Oscillations of arithmetical functions, 331.

Grove, L. C. Tensor products over H*-algebras, 93.

Gulick, S. L., Liu, T. S. and van Rooij, A.C.M. Group algebra modules. I, 63; Group algebra modules. II, 64.

Gupta, R. P. A theorem on the cover index of an s-graph, 714; The chromatic index and the degree of a graph, 719.

Gustafson, K. E. Perturbation of contraction semigroups, 135; State diagrams for Hilbert space operators, 492; Operators remaining compact onto their range. Preliminary report, 621; Uniqueness for boundary problem on small domains. Preliminary report, 716.

Haber, Seymour. A modified Monte-Carlo quadrature, 244.

Haeussler, E. F. See Baxter, W. E.

Hahn, K. T. Some properties of relative invariants on bounded domains, 6707.

Hahn, K. T. and Mitchell, Josephine. Generalization of the Schwarz-Pick lemma to invariant volume in a Kähler manifold, 505.

Haimo, D. T. Maclaurin expansions of solutions of the generalized heat equation, 835.

Halkin, Hubert. Calculus of variations for extremal curves which are absolutely continuous but whose derivatives are not necessarily bounded, 380; A maximum principle for a mathematical programming problem in infinite dimensional space, 490.

Hall, C. A. Intrinsic functions on semi-simple algebras, 90.

____. See Cullen, C. G.

Hall, C. E. Projective topological groups, 62.

Hallam, T. G. Asymptotic behavior of the solutions of a nonhomogeneous singular equation, 815.

Hammer, P. C. Isotonic spaces in convexity. II, 146; Isotonic spaces in convexity. I, 236; Ex-

tended topology: Primitive spaces, 712.

Hamsher, R. M. Commutative rings over which every module has a maximal submodule, 639.

Hansell, R. W. Monotone subnets in partially ordered sets, 725.

Hanson, R. J. On systems of differential equations with special types of singularities, 255; Reduction of those second order turning point problems of type T(h,1,0) ($h \geq 1$), 377; Conditions for holomorphic similarity, 728.

Harary, F. See Lynn, M. S.

Hardy, D. W. See Wisner, R. J.

Hare, W. R. and Kenelly, J. W. A characterization of hyperplanes by Helly type theorems, 828.

Harris, W. A., Jr. Analytic canonical forms for nonlinear difference equations, 590.

_____. See Grimm, L. J.

Harrison, Joseph. Pairs of hyperdegrees without a greatest lower bound, 623; Some basis results, 726.

Harrison, M. A. See Ginsburg, Seymour.

Harrold, O. G. and Seebeck, Charles. Locally weakly flat spaces, 827.

Harnett, W. E. See Calabi, Lorenzo.

Hastings, S. P. The asymptotic growth of solutions to a nonlinear system, 72.

Hay, Louise. Isomorphism types of index sets of partial recursive functions, 144; Elementary differences between the isols and the co-simple isols, 325.

Hayden, T. L. A property of Hilbert spaces. Preliminary report, 500.

Hayes, C. A. A condition of halo type for the differentiation of certain classes of set functions, 353.

Heath, R. W. A note on cosmic spaces. Preliminary report, 88.

Heerema, Nickolas. Convergent higher derivations on local rings, 824.

Heil, T. W. Subdivisions of n-dimensional convex sets in translates, 841.

Heinzer, W. J. Some properties of integral closure. Preliminary report, 379.

_____. See Gilmer, R. W.

Heller, Leon. See Beyer, W. A.

Helms, L. L. A Harnack-type inequality, 132; Biharmonic functions and Brownian motion, 730.

Hemmingsen, Erik. Lifting and projecting expansive homeomorphisms, 622.

Henderson, Mason. Finding the mean value. Preliminary report, 99.

Henney, Dagmar. A structure theorem for n-parameter semigroups, 118; Further properties of set-valued additive functions. III, 577.

Herman, E. A. The symbol of the algebra of singular integral operators, 225.

Hersh, Reuben. A family of nonprobabilistic central limit theorems, 842.

Hicks, T. L. On $t_m$-semireflexive locally convex spaces, 116.

Hill, Paul. Quasi-isomorphism of primary groups, 601; The isomorphic refinement theorem for direct sums of closed groups, 846.

Hill, Paul and Megibben, Charles. Extending automorphisms and lifting decompositions in abelian groups, 844.

Hills, N. L. A priori estimate of the discretization error of some discrete Laplacian operators, 612.

Hinkel, J. S. See Bridgland, T. F. Jr.

Hinton, D. B. A criterion for n - n oscillations in differential equations of order 2n, 820.

Hobby, Charles. Nearly regular p-groups, 352.

Hodges, J. H. Representations by bilinear forms (mod $p^a$), 130.

Hofmann, K. H. See Dauns, John.

Holbrook, J. A. R. Seminormed Riesz spaces and the Egoroff property, 136.

Holmes, R. B. and Kripke, B. R. Smoothness of approximation, 618.

Hooper, R. C. Topological groups and integral norms. Preliminary report, 358; Generalized covering groups, 861.

Horne, J. G. Flows that fiber and some semigroup questions, 820.

Horns, Alfred. See Balbes, Raymond.

Hosken, W. H. Combinatorial systems which produce regular sets. Preliminary report, 732.

Houghton, C. J. Cyclic and fine-cyclic elements, 329.

Howard, Alan. On the homotopy groups of an affine algebraic hypersurface, 129.

Howard, C. M. A trivial result in set theory, 388.

Howard, J. C. Application of tensor methods to mancomputer problems--digital computer formulation of the equations of motion in a general curvilinear system of coordinates, 615.

Howell, L. R., Jr. A tameness condition for 3-cells, 52.

Howland, J. L. Symmetrizing kernels and the integral equations of first kind of potential theory, 844.

Hsiung, C. C. and Shahin, J. K. Affine differential geometry of closed hypersurfaces, 61.

Huber, Alfred. See Arsove, M. G.

Hughes, I. See Bachmuth Seymour.

Humphreys, J. E. Algebraic groups and classical Lie algebras, 728.

Hursch, J. L., Jr. Height of uniformities, 99; An example of two uniformities equal tin height and proximity, 601.

Husch, L. S. On relative regular neighborhoods. Preliminary report, 386; On collapsible Ball pairs. Preliminary report, 577; Monotone union property of manifolds, 819.

Hutcherson, W. R. A rational surface mapped from a plane containing an involution of period eleven, 578.

Hyers, D. H. A note on linear topological spaces, 353.

Igusa, Jun-Ichi. Algebraic geometry and automorphic functions, 124.

Ikebe, Yasuhiko. Generalizations of the Alaoglu theorem, with applications to approximation theory, 598; A characterization of best Tchebycheff approximations in function spaces, 739.

Imaz, Carlos and Oliva, Francisco. Un teorema de existencia de soluciones para ecuaciones diferenciales de tipo neutro, 853.

Insel, A. J. On compactness of the order topology of a lattice. Preliminary report, 82.

Inselberg, Alfred. Applications of superpositions for nonlinear operators, 357.

Irwin, R. L. Absolute Hardy-Bohr factors, 126.

Itzkowitz, Gerald and Mitchell, Theodore. Topological semigroups and fixed points. II, 725.

Ives, R. T. Radon and Helly theorems for finite dimensional unbounded sets, 333; The separation of convex hulls, 832; A generalization of Steinitz' theorem, 849.

Jain, Naresh and Jamison, Benton. Markov processes. I, 484; Markov processes. II, 620.

James, R. C. Some self-dual properties of Banach spaces, 834.

Jamison, Benton. See Jain, Naresh.

Jamison, Benton and Orey, Steven. Markov chains recurrent in the sense of Harris, 122.

Janos, Ludvik. Homothetic property of contractive one-to-one mappings, 818.

Jans, J. P. On orders in QF-rings, 839.

Jean, Michel. Pure irreflexive and symmetric systems. 722.

Jensen, G. A. Complete separation in the Stone topology, 105.

Jockusch, C. G., Jr. Relationships between reducibilities. Preliminary report, 383.

Johnsen, E. C. Special Abelian group difference sets, 102.

Johnson, B. E. The Šilov boundary of M(G), 731.

Johnson, E. W. A-transforms for Noether lattices. Preliminary report, 362.

Johnson, G. G. Concerning local symmetry in the moment problem, 113; Concerning local bounded variation in the moment problem, 129; Roots of homeomorphisms, 815.

Johnson, H. H. Absolute equivalence and hyperbolicity, 836.

Johnson, K. G. Functions of bounded variation and change of variable in a Lebesgue integral, 496.

Johnson, N. W. and Stewart, B. M. Regular-faced polyhedra with holes. Preliminary report, 723.

Joichi, J. T. Normed linear spaces equivalent to inner product spaces, 142.

Jolly, R. F. Multi-valued functions and semicontinuous collections. Preliminary report, 60.

Jonah, D. W. Cohomology of coalgebras. Preliminary report, 359.

Jones, Jimmie. A variation on Tchebycheff quadrature, 642.

Jones, M. P. Continuity of solution of a generalized diffusion equation, 490.

Jones, R. C., Jr. and Karlovitz, L. A. Iterative construction of constrained Tchebycheff approximations of continuous functions, 819.

Jones, R. E. D. Remarks on topologies generated by metric densities. Preliminary report, 607.

Jones, S. E. and Ames, W. F. Nonlinear superposition, 711.

Jones, W. B. A locally convex topology for spaces of holomorphic functions, 584.

Jonsson, Bjarni. Varieties of groups of nilpotency three, 188.

Jordan, J. H. The distribution of cubic and quintic nonresidues, 54.

Kaashoek, M. A. On operators with a Fredholm spectrum. Preliminary report, 253.

Kafka, Virginia. The generation of partial functions. Preliminary report, 630.

Kallman, R. A. On using the Ilstow integral to solve a certain partial differential equation, 372.

Kalme, J. S. Spectral theory of Wiener-Hopf type integral operators on generalized Sobolev spaces, 510.

Kambayashi, Tatsuji. A convergence criterion for multiple ratios, 493.

Kamber, F. W. and Tondeur, Ph. On the characteristic ring of flat bundles, 710.

Kaplan, Samuel. The second dual of the space of continuous functions. V, 639.

Karlovitz, L. A. See Duffin, R. J.

_____. See Jones, R. C., Jr.

Karp, Carol. On the characterization of weakly representable Boolean algebras, 260; The impossibility of effectively characterizing weakly representable Boolean algebras, 378.

Kasch, Friedrich and Mares, E. A. A characterization of semiperfect modules, 254.

Kato, Tosio. Wave operators and similarity for some nonselfadjoint operators, 123.

Katz, I. J. On the generalized inverse of products of matrices, 147.

Katz, M. L. See Friedman, N. A.

Kellogg, C. N. See Wells, J. H.

Kelly, J. B. Products of zero-one matrices, 239.

Kelman, R. B. Los potenciales en electrodes parcialmente sumergidos en medios conductores, 843.

Kelman, R. B. and Madsen, N. K. Bounded solutions for the equation of the linear adiabatic oscillator, 339.

Kenelly, J. W. See Hare, W. R.

Kennison, J. F. Generalized injectivity and reflective subcategories, 469.

Keown, E. R. Some new Hilbert algebras, 575.

Kerzman, N. L. Intermediate spaces of n + 1 quasi-normed spaces, 503.

Kezlan, T. P. A theorem on the Lie ring of a division ring, 720.

Kiltinen, J. O. Existence of field topologies. Preliminary report, 614.

Kim, Jin Bai. Primitive idempotents in a regular semigroup with 0, 246.

Kirby, R. C. Smoothing imbeddings of spheres, 64.

Kirk, W. A. A theorem on local isometries, 71.

Klamkin, M. S. A duality relation in differential equations and some associated functional equations, 97.

Klee, Victor and Bessaga, Czeslaw. Every nonnormable Fréchet space is homeomorphic with all of its closed convex bodies, 61.

Klee, Victor and Walkup, D. W. The d-step conjecture for polyhedra of dimension d < 6, 120.

Klein, Melvyn. Applications of the transfinite diameter to the theory of conformal mapping, 589; Covering theorems for starlike functions, 632.

Klotz, E. A. Isomorphisms of simple Lie rings, 90.

Knight, F. B. A super-Markovian approach to $\Delta^2/2 + V$, 120.

Knoebel, R. A. A class of order-preserving algebras which are categorical and precomplete, 226; Primality-in-the-small and simplicity, 349.

Knopp, Paul. See Sinkhorn, R. D.

Koch, R. J. See Cohen, Haskell.

Koh, Kwangil. Weak radical of a ring, 340; On the quasi-Frobenius ring and the weak topology. Preliminary report, 595.

Kohls, C. W. Ordered extensions of ordered rings, 578.

Kolman, Bernard. Relatively complemented Lie algebras, 594.

Komkov, Vadim. Lower bounds on the natural frequencies of inhomogeneous plates, 817.

Krabbe, Gregers. A Helly representation theorem, 645.

Kraft, S. R. Riemann functions for a linear system of "hyperbolic like" form, 503.

Král, Josef. Normal derivatives of potentials. Preliminary report, 117.

Kramer, H. P. Sobre figures de merito para autómatas cognitivos, 850.

Kreimer, H. F. A Galois theory for noncommutative rings, 604; An infinite Galois theory for noncommutative rings, 817.

Kripke, B. R. See Holmes, R. B.

Krishnamurthy, V. and Loustaunau, Joaquin. On the State Diagram of a linear operator and its adjoint in locally convex spaces, 111.

Krishnan, V. S. Operations in certain categories, 118.

Krzywoblocki, M. Z. v. Some mathematical aspects of models of the special relativity, 114.

Kuelbs, J. D. Measures in function spaces, 485.

Kuipers, Lauwerens. On a general product of three finite cyclic groups two of which being of order $p^2$ and 4 respectively, 847.

Kumpel, P. G., Jr. Symmetric spaces and products of spheres, 738.

Kuo, Y. Elementary divisor theorem for direct sum and tensor products of modules, 333.

Kurss, Herbert. A limit-point criterion for nonoscillatory Sturm-Liouville differential operators, 583.

Kyrala, Ali. Compatability of uncertainty in 3-space with determinism in space-time, 250; A new interpretation of the method of stationary phase, 484.

Lacher, R. C. Almost locally flat n-cells. Preliminary report, 87; Locally flat strings and half-strings. Preliminary report, 141.

____. See Cantrell, J. C.

Lachlan, A. H. A characterization of hh-simple sets, 129; A property of universal sets, 231; Nonaxiomatizability of the elementary theory of standard enumerations of recursively enumerable sets, 495; Many-one degrees. Preliminary report, 726.

Lagrange, Robert. Disjointing infinite sums in Boolean algebras, 497.

Lakshmikantham, V. and Leelamma, S. Asymptotically self-invariant sets and conditional stability. Preliminary report, 106; Parabolic differential equations and conditional stability. Preliminary report, 106.

LaMacchia, Samuel. See Abian Alexander.

LaMacchia, Samuel and Abian, Alexander. A generalized Sheffer function, 232.

Lambert, H. W. Compact 0-dimensional decompositions of E, 107; A topological property of Bing's decomposition of $E^3$ into points and tame arcs, 507.

Lambert, H. W. and Sher, R. B. Point-like 0-dimensional decompositions of S, 596.

Lamperti, John. Semistable Markov processes. Preliminary report, 121.

Landry, G. J. A new family of 5th order Runge-Kutta type formulas, 224.

Landweber, P. S. See Conner, P. E.

Lardy, L. J. Order convolution on $L^1(a,b)$, 374.

Larmore, L. L. On the enumeration of oriented vector bundles over a finite complex, 114.

Larsen, M. D. Equivalent conditions for a ring to be a P-ring, 580.

Larsen, Ronald. Measures with separable orbits, 838.

Larson, R. G. Integral forms of group algebras, 591.

Laskar, Renu. A characterization of cubic lattice graphs, 506.

____. See Bose, R. C.

Lawson, J. D. A proof of the Vietoris mapping theorem via Alexander-Wallace-Spanier cohomology, 828.

Lazar, A. J. On affine continuous functions on simplexes, 631.

Leahey, W. J. A new proof of a theorem of Kummer, 75.

Lebow, Arnold. See L. A. Coburn.

Lee, C. N. and Raymond, F. A. An extension of a generalized cohomology theory, 715.

Lee, Eugene. Algebras of differentiable functions, 840.

Lee, Yu-Lee. On functions which preserve Cauchy nets, 135; A characterization of Baer lower radical, 735.

Lee, Yu-Lee and Mozzochi, C. J. Topological spaces with large uniformities, 491.

Leelamma, S. See Lakshmikantham, V.

Leininger, C. W. Maximal subgroups of the kernel of a semigroup with left zeroids, 501; Ordered semigroups which contain zeroid elements, 643; A note on regular semigroups with zeroid elements, 742; Concerning the structure of ordered semigroups with zeroid elements, 861.

Leipnik, R. B. and Reed, F. C. Monoidal families of discrete distributions, 356, Spherical averages of normal distributions, 575.

Leland, K. O. A Lipschitz characterization of analytic functions, 369; A polynomial approach to topological analysis, 495; The topological line integral and the circulation index, 725.

Levin, R. See Tamura, T.

Levin, Richard and Tamura, Takayuki. Finitely generated commutative archimedean semigroups without idempotent, 834.

Lewin, Jacques. Subrings of finite index in finitely generated rings, 334.

Liberstein, H. M. Numerical studies of the steady state equations for a Hodgkin-Huxley model. Preliminary report, 470.

Lick, D. W. A quasi-linear singular Cauchy problem, 60.

Lin, Y.-F. Relations on topological spaces: Urysohn's lemma, 593.

Lindenstrauss, Joram. See Bonsall, F. F.

Lininger, L. L. See Armentrout, Steve.

Linton, F. E. J. Triples versus theories. Preliminary report, 227.

Lintz, R. G. Relations between usual and generalized functions, 68.

Lister, F. M. Polyhedral approximation of spheres in $E^3$, 366.

Liu, T. S. See Gulick, S. L.

Livingston, A. E. On the radius of univalence of certain analytic functions, 244.

Lloyd, S. P. A mixing condition for extreme left invariant means, 76.

Locke, Phil. On the asymptotic behavior of an nth-order nonlinear equation, 859.

Loeb, Henry. Generalized Haar Theorem with continuous derivatives, 631.

Loeb, P. A. and Walsh, Bertram. The equivalence

of Harnack's principle and Harnack's inequality in the axiomatic system of Brelot, 104; Decomposition of functions and the classification of spaces in axiomatic potential theory. Preliminary report, 146.

Lomonaco, S. J., Jr. Orders of local knottedness. Preliminary report, 101; The penetration index of arc compositions, 592.

Lonergan, F. D. A topological property of Euclidean 3-space mod a certain wild arc, 242.

Long, C. T. Addition theorems for sets of integers, 473.

Lopez-Escobar, E. G. K. A restricted rule of conjunction and infinitary formulas. Preliminary report, 625.

Lotkin, Mark. A self-contained trajectory model, 348; Ballistic parameter determination by means of adaptive filtering, 830.

Loud, W. S. On periodic solutions of nonlinear differential equations of Duffing type, 611.

Loustaunau, Joaquin. See Krishnamurthy, V.

Loveland, L. D. Cellular subsets of 2-spheres in S, 738.

Lowenthal, Franklin. On subsemigroups of the projective group on the real line, 592.

Ludwig, Donald. Diffraction by a smooth convex body, 96.

Luft, Erhard. A stability theorem for topological manifolds, 834.

Luh, Jiang. The structure of certain rings, 70.

Lumer-Naim, Linda. $\mathfrak{H}^p$ spaces of harmonic functions, 481.

Lynn, M. S., Harary, F. and Evans, J. W. On the enumeration of finite topologies, 488.

McAllister, G. T. Quasi-linear uniformly elliptic partial differential equations and difference equations, 92; A priori bounds on difference quotients of discrete potential functions, 469.

McArthur, C. W. and Retherford, J. R. Some applications of an inequality in locally convex spaces, 821.

McAuley, L. F. Completely regular mappings and the weak bundle properties, 132; Completely regular mappings and the slicing structure properties, 230.

McCandless, B. H. On a theorem of Hanner and Dowker, 354; On the adjunction space and hereditary properties, 477.

McCord, M. C. Singular homology of n-cell-like spaces, 257.

McCulley, L. D. See Ablow, C. M.

McCulloh, L. R. Cyclic extensions without relative integral bases, 363.

McEliece, R. J. See Solomon, Gustave.

McGehee, O. C. Certain isomorphisms between quotients of a group algebra, 475; Sets of uniqueness and sets of multiplicity, 506.

McGuiness, D. J. A nonhomogeneous differential equation with a second order turning point, 96.

McIntosh, Alan. Representation of bilinear forms in Hilbert space by linear operators. I, 722; Representation of bilinear forms in Hilbert space by linear operators. II, 857.

McKenzie, Ralph. Finite groupoids and K-prime algebras, 727.

McKnight, J. D. and Storey, A. J. A class of semigroups and its finite quotients, 345.

McLain, D. K. See Duffin, R. J.

McLaughlin, T. G. Unions vs. joins, for disjoint r.e. sets, 387; Some special classes of regressive sets, 732.

McLaughlin, T. Q. Splitting and decomposition by regressive sets. II, 489.

McLeod, Robert and Spira, R. S. Structure of direct factor sets, 382.

McMillan, D. R., Jr. Some topological properties of piercing points, 724.

McWilliams, R. D. On the w*-sequential closure of a Banach space in its second dual, 826.

MacGregor, T. H. Certain averages of univalent functions, 242.

Mack, John. Paracompactness and ordered covers, 582.

Macki, J. W. Singular perturbations of a nonlinear system of ordinary differential equations, 474.

Mader, A. G. On the normal structure of the automorphism group and the ideal structure of the endomorphism ring of abelian P-groups, 74; A note on direct and semi-direct products of groups, 471.

Madsen, N. K. See Kelman, R. B.

Magill, K. D., Jr. Another S-admissible class of spaces, 143; Semigroup structures for families of functions. I, 256; Semigroup structures for families of functions. II. Continuous functions, 330; Spaces determined by left ideals of semigroups, 509.

Maharam, Dorothy. Invariant measures and Radon-Nikodym derivatives, 640.

Mahavier, W. S. Upper semicontinuous decompositions of irreducible continua, 260.

_____. See Friedberg, Michael.

Maher, L. P., Jr. An expansion of the real-number system, 368; Continued binary exponentiations and a function obtained from them. Preliminary report, 382.

Malitz, Jerome. Universal sentences in languages with countable conjunction, 128.

Malloy, Sister M. Assumption. A substitution theorem for a Stieltjes integral, 642.

Malone, J. J., Jr. Automorphisms of abstract affine near-rings, 823.

Maltese, G. J. and Bucy, R. S. A representation theorem for positive functionals on involution algebras, 143.

Manaster, A. B. Full co-ordinals of recursive equivalence types, 340.

Mancuso, V. J. n-ANR's for certain normal spaces, 849.

Mandelker, M. W. Prime z-ideals in C(R). I, 334; Prime z-ideals in C(R). II, 368.

Marcus, Marvin. Symmetry classes and combinatorial identities, 120.

Marcus, Marvin and Minc, Henryk. An inequality for the elementary symmetric functions of characteristic roots, 92.

Mardešić, Sibe. Locally connected images of ordered compacta are locally peripherally metric, 507.

Mardešić, Sibe and Segal, Jack. A characterization of polyhedra embeddable in the plane, 71; $\epsilon$-mappings and generalized manifolds, 356; $\epsilon$-mappings and generalized manifolds. II, 836.

Mares, E. A. See Kasch, Friedrich.

Marsh, W. E. Spanning in model theory, 83.

Martin, M. H. and Trytten, G. N. Inequalities associated with quadratic forms, 848.

Martindale, W. S. See Baxter, W. E.

Massie, David. See Sommers, Fred.

Mathews, J. C. See Curtis, D. W.

Matzinger, Heinrich. On the axioms of topological structures, 370.

May, K. O. Exponential growth of the mathematical literature, 579.

Mazhar, S. M. On a generalisation of a lemma of Chow, 133.

Megibben, C. K. On mixed groups of torsion-free rank one, 116; Extending homomorphisms of primary abelian groups. Preliminary report, 590.

_____. See Hill, Paul.

Meir, Amram and Sharma, A. Simultaneous approximation of a function and its derivatives, 105; A variation of the Tchebycheff quadrature formula, 385.

Mendelsohn, N. S. and Benson, C. T. A calculus for a certain class of word problems in groups, 248.

Meyer, D. V. See Armentrout, Steve.

Meyers, P. R. Contraction theorems. Preliminary report, 379.

Michael, E. A. and Pełczynski, Aleksander. Partition-subspaces and norm-one bases in C(X), 107.

Miles, E. P., Jr. and Young, E. C. Solution of the Cauchy problem for a generalized EPD equation with polyharmonic data, 59; A basic set of polynomial solutions for a generalized EPD and Beltrami equations, 590.

Miller, Gary. A countable Urysohn space with an explosion point, 589.

Miller, K. S. and Sackrowitz, Harold. Equivalence of biased and unbiased Rayleigh distributions, 737.

Miller, Keith. Barriers on cones for elliptic operators with measurable coefficients, 225.

Miller, R. K. Existence criterion for almost periodic solutions of A. P. system, 89.

Miller, Willard, Jr. The Lie theory of monic induced group representations, 368.

Minc, Henryk. See Marcus, Marvin.

Mines, Ray. Completeness and generalized primary groups, 111.

Mitchell, Josephine. See Hahn, K. T.

Mitchell, Theodore. Topological semigroups and fixed points, 724.

_____. See Itzkowitz, Gerald.

Mochizuki, H. Y. See Bachmuth, Seymour.

Mond, Bertram. A Hilbert space generalization of Kantorovich's inequality, 86; An inequality for matrices when some eigenvalues are given, 598.

Monk, G. S. The representation of primary lattices, 603.

Moon, J. W. On certain subtournaments of a tournament, 582.

Moon, J. W. and Moser, Leo. A matrix reduction problem, 58; Generating oriented graphs by means of team comparisons, 837.

Moore, R. E. Interval analysis: an approach to constructive two-sided approximation for nonlinear problems, 85.

Moore, R. T. Duality methods in the perturbation of holomorphic semigroups on Banach spaces. Preliminary report, 604.

Morel, A. C. Remarks on absolutely convex subgroups. Preliminary report, 100; Group-structural criteria for group orderings. II. Preliminary report, 140.

Morgan, R. C. Uniqueness theorem for the reduced wave equation under an Nth order differential boundary condition, 343.

Morris, P. D. See Wulbert, D. E.

Morrison, J. A. A generalized method of averaging, with applications to slightly damped nonlinear oscillations, 81.

Moser, Leo. See Moon, J. W.

Moser, W. O. J. Coset enumeration used to solve a word problem in groups, 245.

Mostow, G. D. On the conjugacy of subgroups of semisimple groups, 124.

Mott, J. L. Multiplication rings with only finitely many minimal prime ideals, 825.

Motzkin, T. S. Combinatorial functions and theorems like Ramsey's, 630.

Moy, S.-T. C. Ergodic properties of expectation matrices of a Markov branching process with countably many types, 334; Extensions of a limit theorem of Everett, Ulam and Harris on multitype branching processes to a branching process with countable many types, 833.

Moyer, R. D. See Chu, S. C.

Mozzochi, C. J. See Lee, Yu-Lee.

Mrówka, S. G. On incompactness of logics with infinitely long expressions. Preliminary report, 342; Topological significance of a certain class of cardinals. Preliminary report, 373; On closed embedding into products. Preliminary report, 715.

Muller, D. E. Composition of operations in a generalized algebraic system, 346.

Mullin, A. A. On fixed-point results for some computable functionals, 132; An analogue of Ramanujan's tau-function. Preliminary report, 231; Another estimate of the pi-function. Preliminary report, 376; On an analogue of the Ramanujan sum, 493; Another application of much reduced residue systems mod n. Preliminary report, 621; Fixed-points for iterations of Dirichlet series. Preliminary report, 717; A note on Farey series. Preliminary report, 855.

Murdeshwar, M. G. and Naimpally, S. A. Trennungs-axioms in quasi-uniform spaces, 59.

Murray, C. B. On the existence of Stieltjes integrals, 361; On a substitution theorem for Stieltjes integrals, 378.

Mycielski, Jan. A generalization of the Bolzano-Weierstrass theorem, 130; Independent sets and measures, 858.

Myers, D. E. Analytic functions of polynomial growth on a polycylinder. II, 377; Analytic functions on the generalized character group, 849.

Nachman, Aronszajn. See Brown, R.

Nadkarni, M. G. On factoring matrix valued functions in the Bohr group, 248; Representation of stationary spectral measures, 328.

Nadler, S. B., Jr. Differentiable retractions in Banach spaces, 84.

Naimpally, S. A. See Murdeshwar, M. G.

Nakano, Hidegoro. Mathematical set theory, 326; Semiinvariant measures, 713.

Nakano, Kazumi. Function systems, 336; Completion of function systems, 713.

Nanzetta, Philip. Maximal lattice-ordered algebras of continuous functions, 859.

Narici, Lawrence. On nonarchimedean Banach algebras, 137; On nonarchimedean linear spaces, 232.

Negrepontis, Stelios. Absolute Baire sets, 114.

Nelson, Edward. Classical and quantized partial differential equations, 124.

Néubauer, G. J. Homotopy properties of Fredholm operators in Banach spaces, 236; The homotopy type of some automorphism groups, 387.

Neuberger, J. W. Symmetry in non self-adjoint Sturm-Liouville systems, 127; A product integral formula for one parameter semigroups of nonlinear transformations. Preliminary report, 719.

Nevanlinna, Veikko. A refinement of Selberg's asymptotic equation, 349.

Newman, D. S. A stochastic process based on an alternating renewal process, 352.

Nielsen, R. M. and Brace, J. W. A uniform boundedness theorem, 240.

Nieto, Joseph. On the stability of the index of certain singular integral operators, 236.

Nikolai, P. J. Inequalities for the permanent and determinant, 236.

Nilson, E. N. See Ahlberg, J. H.

Nitsche, J. C. C. Concerning the general maximum principle, 106; An inclusion theorem for minimal surfaces, 324.

Norris, M. J. See Driver, R. D.

Norton, K. K. On kth power coset representatives and diagonal congruences modulo a prime power. Preliminary report, 504; On homogeneous diagonal congruences. Preliminary report, 734.

Nower, Leon. On division of tempered distributions by polynomials, 332.

Nunke, R. J. Categories of extensions, 94; On the structure of Tor. II, 831.

Nymann, J. E. A Minkowskian bound for a class of biquadratic fields arising from fixed points of the Hilbert modular group, 70.

Oberst, Ulrich. See Gabriel, Peter.

Odell, P. L. See Boullion, T. L.

Ogg, A. P. Abelian curves of small conductor, 353.

Oliva, Francisco. Ecuaciones diferenciales generalizadas en espacios de Banach. Aplicaciones, 852.

_____. See Imaz Carlos.

Olive, Gloria. A combinatorial interpretation of generalized powers for finite linear spaces, 67.

O'Malley, R. E., Jr. Two-parameter second order problems in singular perturbations, 341.

O'Neill, B. V. Representing measures and hypo-Dirichlet algebras, 499.

O'Neill, B. V. and Wermer, John. Parts of certain function algebras, 625.

O'Neill, R. C. Some theorems on retracts, 75.

Ono, Takashi. On the Tamagawa number of homogeneous spaces, 125.

Orey, Steven. See Jamison, B.

Orlik, P. P. Some topological invariants of Seifert fiber spaces. Preliminary report, 359.

Orzech, Morris. A cohomology theory of Harrison for connected rings, 257.

Osborn, J. E. Approximations for the eigenvalues of certain non self-adjoint operators, 79.

Ostrom, T. G. The dual Luneburg plane, 64.

Outcalt, D. L. Simple (n,n + 1)-alternative rings, 95.

Pall, Gordon and Whyburn, C. T. Totally positive quadratic forms over quadratic fields. Preliminary report, 613.

Parikh, R. J. Some results on lengths of proofs, 487.

Park, D. M. R. Ultraproducts, direct and inverse limits, 729; Ultralimits, nested unions and intersections, 856.

Parsons, Charles. Reduction of inductions to quantifier-free induction, 740; Ordinal recursion in partial systems of number theory, 857.

Parter, S. V. See Brualdi, R. A.

Patty, C. W. Isotopy classes of imbeddings, 109; Homology of deleted products of contractible 2-dimensional polyhedra. I, 826.

Payne, S. E. and Tinsley, M. F. Projective (K,S)-configurations. Preliminary report, 78.

Pearl, Martin. On matrices which are unitarily similar to diagonal matrices, 584.

Pearson, T. See Ceder, J. G.

Peek, Darwin. Pointwise limits of sequences of continuous real valued functions, 588.

Peinado, R. E. On the commutativity of rings, 259.

Peinado, R. E. and Anderson, J. M. Algebra de relaciones n-arias. Informe preliminar, 845.

Pełczynski, A. Some topological and linear topological properties of separable function algebras. Preliminary report, 66; Invariant means and uniformly continuous retractions. Preliminary report, 356.

_____. See Michael, E. A.

Perkins, Peter. Finite bases for identities in commutative semigroups, 137.

Perko, L. M. The solution of a certain nonlinear boundary value problem, 585.

Perry, Clifford. Closed uniform subgroups of solvable Lie groups, 365.

Persinger, C. A. m-frames in tame n-books in $E^3$, 130.

Peters, Richard. A 2-place superassociative algebra on projective lines. Preliminary report, 629.

Peterson, B. B. Formal contraction of the n-simplex, 135.

Petrich, Mario. Partial homomorphic images of certain groupoids, 83.

Petrie, Ted. The K theory of the projective unitary group, 625.

Petryshyn, W. V. On a fixed point theorem for nonlinear P-compact operators in Banach space, 367.

Pfaltzgraff, J. A. Radial symmetrization and capacities in space. Preliminary report, 509.

Pfeffer, A. M. On certain discrete inequalities and their continuous analogues, 257.

Pfeffer, V. F. On a semihereditary property of sets. Preliminary report, 380.

Phelps, R. R. See Bonsall, F. F.

Pigozzi, Don. On some operations on classes of algebras, 829.

de Pillis, J. E. Noncommutative Markov processes, 113.

Pimbley, G. H. A condition for no secondary bifurcation of eigenfunctions of Hammerstein operators, 830.

Plank, D. L. Points in $\beta X$ associated with certain subalgebras of C(X), 391.

Plummer, M. D. See Beineke, L. W.

Posner, E. C. and Rumsey, Howard, Jr. Epsilon entropy of the Wiener process, 349.

Port, S. C. A system of denumerably many transient Markov chains, 121.

Powderly, Mary. Consequences and generaliza-

tions of a lemma of Tong, 383.

Powell, R. E. The L(r,t) summability transform, 85.

Pranger, W. A., Jr. Orbits of analytic functions, 508.

Price, T. M. A knotted cell pair with knot group Z, 485.

Prikry, Karel. Measurable cardinals and saturated ideals. Preliminary report, 720.

Proctor, T. G. An invariant curve theorem for analytic mappings of an annulus, 53.

Prosl, R. H. and Slepian, Paul. Compact and product bases, 338.

Prosser, R. T. The -entropy and -capacity of a compact operator on a Hilbert space, 345.

Pullman, N. J. Infinite products of substochastic matrices, 247.

Queen, W. C. and Zemanian, A. H. An inversion formula for the generalized Weierstrass transformation, 741.

Quintas, L. V. Extrema concerning asymmetric graphs, 483.

Raimi, R. A. Translation properties of finite partitions of the positive integers, 64.

Rajapakse, Y. D. S. See Ablow, C. M.

Ramanujam, S. An application of Morse theory to certain symmetric spaces, 80.

Ramirez, D.E. Uniform approximation by Fourier-Stieltjes transforms. Preliminary report, 109.

Randol, Burton. A number-theoretic estimate, 381.

Rankin, Bayard. Laguerre functions with truncated domains, 93.

Rao, K. V. R. A class of bounded analytic functions whose derivatives are not of bounded type, 149; On certain algebras of analytic functions. II, 232.

Rapaport, E. S. Factorizations of finite groups. I, 600.

Ratti, J. S. On high indices theorems, 78.

Raymond, F. A. See Lee, C. N.

Reay, J. R. An extension of Radon's theorem. Preliminary report, 841.

_____. See Geyer, E. P.

Reddy, W. L. Certain products of tori manifolds admit expansive homeomorphisms, 131.

Reed, C. S. Pointwise limits of sequences of quasicontinuous functions, 360.

Reed, Frank. See Leipnik, R. B.

Reed, T. J. On quasiconformal mappings with given boundary values, 101.

Rehner, N. F. An integral over complex Hilbert spaces. Preliminary report, 343.

Reilly, N. R. Bisimple inverse semigroups, 500.

Reiner, Irving. Module extensions and blocks, 259.

Reinhardt, W. N. Ackermann's set theory coincide with ZF, 727.

Reneke, J. A. Linear functionals on the space of quasicontinuous functions, 593.

Resnik, M. D. A unified theory of types, 351.

Retherford, J. R. Quasi-reflexivity and weakly unconditionally convergent series, 335; Čebyšev subspaces and unconditional bases in Banach spaces, 819.

_____. See McArthur, C. W.

Reynolds, W. F. Projective representations in arbitrary fields, 235.

Rhee, C. J. Homotopy functors determined by set-valued maps, 129.

Rhoades, B. E. On total inclusion for Norlund methods of summability. II, 88.

Richardson, Daniel. Some unsolvable problems involving functions of a real variable, 135.

Richardson, R. L. Topological Post coset theorem. Preliminary report, 343.

Richardson, R. W. Conjugacy classes in algebraic groups, 839.

Richman, Fred and Walker, Carol. A purification problem in primary abelian groups, 81.

Rider, Daniel. See Figà-Talamanca, Alessandro.

Ritchie, R. W. and Young, P. R. Strong representability of partial recursive functions, 114.

Ritter, W. E. The least upper bound principle in hyperarithmetic analysis, 110; Strong representability of partial recursive functions in formal theories, 594.

Riviere, N. M. Symbolic calculus of kernels with mixed homogeneity, 246.

Riviere, N. M. and Sagher, Y. The converse of Wiener-Lévy-Marcinkiewicz theorem, 262; On the stability of some algebras of absolutely convergent Fourier series, 491.

Robbins, H. E. See Chow, Y. S.

Robertson, L. C. Connectivity, divisibility, and torsion, 87.

Robertson, M. S. A generalization of the Bieberbach coefficient problem for univalent functions, 502.

Robinson, D. A. Holomorphy of Bol loops, 503.

Robinson, Ivan, Zund, J. R. and Zund, J. D. Degenerate fields with twisting rays, 71.

Robinson, R. M. Finite sets of points on a sphere with each nearest to five others, 739.

Robinson, R. W. Recursively enumerable sets not contained in any maximal set, 325.

Robinson, S. F. The evaluation of a character sum, 134; A theorem on Brewer sums, 623.

Robkin, E. E. A remark on the double equichordal point problem. Preliminary report, 511.

Rodin, E. Y. Solution of Burgers' equation with Cauchy data, 109.

Roelle, Thomas. See DeCicco, John.

Rogers, E. H. Stability and convergence of approximation schemes, 743.

Rogers, J. W., Jr. A space whose regions are the simple domains of another space, 363.

Rogers, Kenneth. The quadratic reciprocity law via the geometry of numbers, 354.

Roggenkamp, K. W. Representations of finite groups in polynomial rings, 850.

Rohrbach, Hans. See Brauer, A. T.

Rolwing, R. H. and Barnett, I. A. An extremal problem associated with a certain nonlinear integral equation, 358.

van Rooij, A. C. M. See Gulick, S. L.

Rosenberg, A. L. Real-time definable languages, 495; A remark on real-time definable languages, 624.

Rosenkrantz, W. A. Some theorems of Berry-Esséen type, 633.

Rosenlicht, Maxwell. Another proof of a theorem on rational cross sections, 351.

Ross, C. C., Jr. A note on the equivalence of symmetric and asymmetric differential systems with parameter. Preliminary report, 606.

Rota, G.-C. A new look at the coloring problem, 124.

Roth, J. P. The calculus for failure diagnosis, 344.

Rotman, Brian. On incomparable order types, 633.

Rubin, Herman and Rubin, J. E. A theorem on n-tuples which is equivalent to the well-ordering theorem, 628.

Rubin, J. E. See Rubin Herman.

Rumsey, Howard, Jr. See Posner, E. C.

Rung, D. C. Inequalities on holomorphic functions omitting one value, 108.

Rutledge, D. S. Semigroups of nonlinear transformations with periodic trajectories. Preliminary report, 622.

Ryff, J. V. On Muirhead's theorem, 115; Estimating max $|f(z) - \zeta|$ for bounded analytic functions, 587.

Sabidussi, G. O. The automorphism group of nets, 147.

Sade, A. J. V. Quasigroupes demi-symétriques. II. Autotopies gauches, 137; Quasigroupes isotopes d'un quasigroupes demi-symétrique, 250; Quasigroupes demi-symétriques. Isotopies préservant la demi-symétrie, 387.

Sadosky, Cora. See Aranda, P. J.

Sagher, Y. See Riviere, N. M.

Sagle, A. A. On reductive Lie admissible algebras. Preliminary report, 143.

Sain, S. K. See Singh, Surjeet.

Salehi, Habib. On prediction theory with continuous time. Preliminary report, 239;On the growth of a q-variate stationary stochastic process. Preliminary report, 601; The Hilbert space of square-integrable $p \times q$ matrix-valued functions with respect to a $\sigma$-finite, nonnegative, hermitian measure, 632.

Sanderson, D. F. On generalizations of the Gel'fand-Mazur representation theory, 477.

Sansone, F. J. Order preserving extensions to regressive isols, 74.

Sarafyan, Diran. Runge-Kutta formulas in pseudo-iterative form, 224; Multistep Runge-Kutta formulas, 847.

Sarason, Donald. See Ahern, Patrick.

Sarason, Leonard. Elliptic regularization for symmetric positive systems. II, 371.

Sard, Arthur. Optimal approximation, 834.

Sasser, D. W. and Slater, M. L. A generalization of the van der Waerden conjecture, 331; Totally positive matrices whose entries are permanental functions of a given matrix, 474; The Tchebycheff inequality and the van der Waerden permanent conjecture, 837.

Sastry, T. V. Turning point problems for certain systems of linear differential equations, 252.

Sattinger, D. H. A singular eigenfunction expansion in anisotropic neutron transport theory, 363; The Rayleigh problem in hydrodynamic stability, 838.

Satyanarayana, M. Rings with ext. m.c. property, 605; Generalized primary rings, 638.

Savage, N. W. Ahlfors' conjecture concerning extreme Sario operators, 390.

Saworotnow, P. P. Second structure theorem for complemented algebras. Preliminary report, 491.

Saxena, R. K. An inversion for a kernel, 253; On fractional integration operators, 510; On the formal solution of dual integral equations, 732.

Scarborough, C. T., Jr. Minimal metric spaces, 245.

Schaefer, P. W. Pointwise bounds in the Cauchy problem for an elliptic system, 583.

Schaerf, H. M. Invariant probability measures for temporally homeogeneous Markov processes. Preliminary report, 337.

Schattschneider, Doris. On restricted roots of a semisimple algebraic group. Preliminary report, 115.

Schechter, Martin. Estimates for boundary operators, 241; On regularly accretive extensions, 388; On $H^s$-bounded operators, 493; On isolated points of the spectrum, 627; Strongly elliptic operators perturbed by a potential, 718; Fredholm operators, 862.

Scheick, J. T. Polynomial approximation of functions analytic in a disk, 131.

Schenkman, Eugene. Nilpotent automorphisms, 501.

Schmidt, W. M. Heights of subspaces and diophantine approximations, 97.

Schnare, P. S. The ultraspace theorem is equivalent to the Boolean prime ideal theorem. Preliminary report, 472; The maximal $T_0$ (respectively $T_1$) subspace lemma is equivalent to the axiom of choice, 497.

Schneider, Hans. See Brualdi, R. A.

Schneider, Hans and Weissglass, Julian. Group rings, semigroup rings and their radicals, 66.

Schneider, W. J. An analytic function with limit zero along some path tangent to each radius, 228; Boundary behavior of conformal maps from simply connected domains onto half planes, 342; An elementary proof and application of an extension of Aufgabe 160, 372; An example of a Julia line which is not a Milloux line, 476; How to economically imprison a drunken sailor (Subtitle: Bounded analytic functions with small sets of a.e. limits.), 710.

Schröder, Johann. Differential inequalities of the fourth order, 148.

Schrot, Sister Maris Stella. On pseudo-valued global fields, 108.

Schubert, Cedric. See Goldberg, Seymour.

Schweizer, Berthold. See Cargo, D. P.

Secker, M. D. Reversibly continuous bisensed transformations of an annulus into itself, 359.

Seebeck, Charles. $\epsilon$-taming in codimension 3, 579.

_____. See Harrold, O. G.

Seeley, R. T. The powers $A^s$ of an elliptic operator A, 122.

Seever, G. L. Measures on F-spaces, 241.

Segal, Jack. See Mardešić, Sibe.

Seibert, P. Estabilidad bajo perturbaciones sostenidas en flujos continuos, 852.

Seidman, T. I. and Bharucha-Reid, A. T. On processes equivalent to Feller processes, 69.

Selfridge, R. G. Numerical filtering, 827.

Selman, A. L. Completeness of a calculus of equation implications. Preliminary report, 731.

Sen, M. See Dutta, Mahadev.

Serrin, James. Removable singularities of solutions of elliptic equations, 123.

_____. See Aronson, D. G.

Shah, S. M. See Gray, Alfred.

Shahin, J. K. See Hsiung, C. C.

Shamir, Eliahu. Mixed estimates for systems of singular integral operators and applications to elliptic problems, 260.

Shampine, L. F. Quasilinearization and a new monotone iteration, 88.

Shankar, Hari. Some inequalities for the Ahlfors-Shimizu characteristic and the area on the Riemann sphere, 346.

Sharma, A. See Meir, Amram.

Shedler, G. S. On the classification of nilpotent Lie algebras of dimension six, 733.

Shenk, N. A. II. Eigenfunction expansions and scattering theory for the wave equation, 104.

Sher, R. B. Toroidal decompositions of $E^3$, 100.

_____. See Lambert, H. W.

Sher, R. B. and Alford, W. R. Some decompositions of 3-space that are factors of 4-space, 611.

Sherman, Bernard. A free boundary problem for the heat equation with heat input at a melting interface, 254.

Sherman, M. J. Spectral inner functions, 350.

Shih, C. T. Construction of Markov processes from hitting probabilities. Preliminary report, 234.

Shivali, Satish. Symmetry of complex involutory Banach algebras. Preliminary report, 482.

Showalter, D. W. Representation and computation of the pseudo inverse, 634.

Siebenmann, L. E. The structure of tame ends, 862.

Sigler, L. E. A real factorization of a real linear differential operator with coefficients in a logarithmic module, 639.

Sigmon, K. N. Medial means on an arc, 825.

Sikkema, C. D. Two spheres in $S^3$ with countable wild sets, 824.

Sillars, Walter. Permutation grammars. Preliminary report, 258.

Silver, J. H. The consistency of the generalized continuum hypothesis with the existence of a measurable cardinal, 721; On a question of Rowbottom, 237.

Silverman, Edward. See Greenspan, Donald.

Silverman, Stephen. Extensibility of outer measures, 91.

Simon, A. B. See Goldberg, R. R.

Simon, Hermann. Artinian and noetherian hypercentral groups, 62.

Simons, Stephen. A front-ended proof of Lebesgue's theorem, 326.

Singh, Surjeet and Jain, S. K. On pseudo injective module and self pseudo injective rings, 737.

Singletary, W. See Axt, Paul.

Sinkhorn, R. D. and Knopp, Paul. Concerning nonnegative matrices and doubly stochastic matrices, 68.

Skala, Helen. The irreducible generating sets of two-place functions in the two-valued logic, 588.

Slater, M. L. See Sasser, D. W.

Slepian, Paul. See Prosl, R. H.

Sloss, J. H. Interpolation with remainder of real analytic functions in several variables, 324.

Slover, Rebecca. Nilpotence-related properties of rings, 823.

Small, Lynne. Simple rings with involution, 508.

Smith, K. P. See Wright, F. M.

Smith, W. W. and Butts, H. S. Prüfer rings, 335.

Smithson, R. E. Selection theorems for multivalued functions, 94; A note on acyclic continua, 819.

Smoller, J. A. See Conway, E. D.

Smyth, Brian. Differential geometry of complex hypersurfaces, 481.

Snyder, L. E. Bi-arc boundary functions, 488.

Sobczyk, Andrew. Maximal topologies for injective pre-images, 828.

Solomon, Alan. A least area problem for a system of surfaces with a free point. Preliminary report, 608.

Solomon, D. W. Denjoy integration in abstract spaces. I, 69; Denjoy integration in abstract spaces. III, 366; Denjoy integration in abstract spaces. II, 389.

Solomon, Gustave and McEliece, R. J. Weights of cyclic codes, 352.

Solovay, Robert. Real-valued measurable cardinals. Preliminary report, 721.

Sommers, Fred and Massie, David. Provability and predictability, 627.

Spanier, Jerome. Some results on transport theory and their application to Monte Carlo methods, 330.

Spiegel, Eugene. On the automorphisms of the unitary group over a field of characteristic 2, 137.

Spira, R. S. See McLeod, Robert.

Spira, Robert. Zeros of approximate functional approximations, 57; A sufficient condition for the Riemann hypothesis, 387.

Sprecher, D. A. On best approximations in several variables, 844.

Springer, T. A. Jordan decomposition in the Lie algebra of a linear group, 125.

Stampfli, J. G. The numerical range of an operator, 379; A minimal hull theorem for operators, 480; Generators for the algebra B(H), 859.

Stancl, D. L. Multiplication in Grothendieck rings of integral group rings, 501.

Steen, L. A. On uniform approximation by rational functions, 585.

Stein, S. K. Tiling n-space, 576.

Stenger, William. A counterexample in the new maximum-minimum theory of eigenvalues, 327; A necessary and sufficient condition in Poincaré's theory of eigenvalues, 591; The maximum-minimum principle for the eigenvalues of unbounded operators, 731.

Stengle, Gilbert. Square integrable analytic functions on Hilbert space, 612.

Stephan, B. H. A study of limit cycles which occur when the secular equation has an infinite number of roots. Preliminary report, 577.

Stephenson, R. M., Jr. A note on the Stone-Weierstrass theorem. Preliminary report, 644; Remarks on minimal topological spaces, 256.

Stevens, D. C. Expected number of real zeros of polynomials, 79.

Stewart, B. M. See Johnson, N. W.

Stone, A. L. Nonstandard analysis in topological algebra, 67.

Stone, Charles. Ratio limit theorems for random walks on groups, 259.

Storey, A. J. See McKnight, J. D.

Strait, Peggy Tang. Sample function regularity for Gaussian processes with the parameter in a Hilbert space, 227.

Straus, E. G. On a problem of P. Erdős in combinatorial number theory, 471.

Strauss, W. A. A remark on nonlinear elliptic equations, 249.

Stringall, R. W. Automorphism groups of Abelian p-groups and generalized Boolean algebras, 392; Endomorphism rings of p-primary abelian groups. 472.

Sucheston, Louis. On the ratio ergodic theorem, 492.

Sugar, A. C. Neo-Newtonian dynamics. Preliminary report, 329; The role of modern mathematics in modern physics. Preliminary report, 612.

Sullivan, R. H. See Bogdanowicz, W. M.

Sundaresan, Kondagunta. Uniformly non - $l_n^{(1)}$ Orlicz spaces, 99.

Swanson, C. A. Comparison theorems for elliptic equations on unbounded domains, 608.

Swierczkowski, S. The homology and cohomology groups of a local group, 846.

Synowiec, J. A. Generalized polygenic functions. I, 627.

Szeptycki, Pawel. See Aronszajn, Nachman.

Taam, C. T. Asymptotically periodic and almost periodic solutions of nonlinear differential equations, 112.

Taam, C. T. and Welch, J. N. Compact solutions, and their approximation, of nonlinear differential equations in Banach spaces, 83.

Taft, E. J. Cohomology of algebraic groups and invariant splitting of algebras, 125; Orthogonal conjugacies in finite groups, 228.

Tamura, Takayuki. Construction of commutative archimedean semigroups without idempotent, 148.

_____. See Levin, Richard.

_____. See Yamada, Miyuki.

Tamura, Takayuki and Chrislock, J. L. Subdirect product of s-indecomposable semigroups, 831.

Tamura, Takayuki and Levin, R. Locally cyclic semigroups, 149.

Taner, Tugrul. A characterization of the algebraic functions, 629.

Tarski, Alfred. Some decision problems for locally free commutative algebras, 634; On direct products of Boolean algebras with additional operations, 728.

Tauer, Sister Rita Jean. M-semiregular subalgebras in hyperfinite factors, 729.

Taussky, Olga. The factorization of the adjugate matrix, 492; An application of the minimum number of terms in the expression of - 1 as a sum of squares, 621.

Taylor, G. D. Multipliers on D, 57.

Taylor, J. C. The Feller and Šilov boundaries of a vector lattice, 144.

Taylor, J. L. Convolution measure algebras with group maximal ideal spaces. Preliminary report, 87.

Taylor, S. J. Multiple points for the sample paths of the symmetric stable processes, 235.

Taylor, S. J. and Wendel, J. G. The exact Hausdorff measure of the zero set of a stable process, 233.

Teicher, Henry and Wolfowitz, Jacob. Existence of optimal stopping rules for linear and quadratic rewards, 139.

Teller, J. R. A theorem on Riesz groups, 616.

Thampuran, D. V. Uniform continuity and general topology, 483; Neighborhood spaces and n-metrics, 637; Nets and compactness, 739.

Tharp, L. H. Bernay's set theory and the continuum hypothesis, 138; Measurable cardinals and Bernay's set theory, 233.

Thatcher, J. W. Definability in elementary theories of multiple successor arithmetics, 742.

Thomas, E. S. Spaces determined by their homeomorphism groups, 720.

Thomas, E. S., Jr., and Wechsler, M. T. The characterization of manifolds by their homeomorphism groups, 605.

Thomason, S. K. Lattice-embeddings in the degrees and hyperdegrees, 136; A natural transfinite hierarchy of hyperdegrees, 472; Complete $\Pi_1^1$ sets of natural numbers, 596.

Thompson, A. H. A note on the Herglotz-Noether theorem for rigid motion in relativity theory, 240.

Thompson, Maynard. Approximation of bounded analytic functions on the disc, 628.

Thompson, R. C. Matrix commutators, 98.

Tierney, Myles. The cohomology of the classifying space for K-theory mod p, 249.

Tindell, Ralph. A mildly wild 2-cell in $E^4$, 79; Unknotting manifolds with 1-spines. Preliminary report, 579; Unknotting manifolds with low dimensional spines. Preliminary report, 821.

Ting, T. W. Elastic-plastic torsion of a square bar, 93.

Tinsley, M. F. See Payne, S. E.

Titus, C. J. Immersions of a circle in the plane, 245.

Tondeur, Ph. See Kamber, F. W.

Topping, D. M. An isomorphism invariant for spin factors, 73.

Toranzos, F. A. Imbedding of convex metric spaces in $E^n$, 77; A version of Riesz's theorem for convex metric spaces, 134.

Torrance, C. C. Real vs. apparent time, 225.

Traub, J. F. Proof of global convergence of an iterative method for calculating complex zeros of a polynomial, 117.

Trench, W. F. On the stability of midpoint smoothing with Legendre polynomials, 497; Bounds on the generating functions of certain smoothing operations, 604.

Troesch, B. A. Integral inequalities for two functions, 386.

Trytten, G. N. See Martin, M. H.

Tucker, C. T. Pointwise limits of quasi-continuous functions, 362.

Turquette, Atwell. Generalizable Kleene logics, 837.

Tyndall, Bruce. Particular derivatives. Preliminary report, 598.

Uhl, J. J. A representation of bounded linear operators on Orlicz spaces. Preliminary report, 335.

Ullrich, D. F. See Coffman, C. V.

Varberg, D. E. On Gaussian measures equivalent to measure. II, 254.

Vaughan, J. E. A modification of Morita's characterization of dimension, 583.

Vegh, Emanuel. A note on a theorem by L. Redei, 575.

Vessey, T. A. Some properties of oricyclic cluster sets, 86.

Villamayor, O. E. See Zelinsky, Daniel.

Volk, Benjamin. Differences, convolutions, primes. II, 127; Differences, convolutions, primes. III, 230; Differences, convolutions, primes. IV, 377; Differences, convolutions, primes. V, 479; Differences, convolutions, primes. VI, 619; Differences, convolutions, primes. VII, 716; Differences, convolutions, primes. VIII, 854.

Volk, Ralph. Symmetric addition, 500.

Walker, Carol. See Richman, Fred.

Walkup, D. W. See Klee, Victor.

Walsh, B. J. Atomicity of spectral measures on certain spaces, 118.

———. See Loeb, P. A.

Walsh, J. L. The convergence of sequences of rational functions of best approximation. III, 150; Note on degree of convergence by rational functions compared with degree of convergence by polynomials, 623; Approximation by bounded analytic functions: uniform convergence as implied by mean convergence, 738.

———. See Ahlberg, J. H.

Warfield, R. B., Jr. Complete abelian groups and direct sum decompositions, 736.

Warne, R. J. Extensions of Brandt semigroups, 126; Extensions of I-bisimple semigroups, 227; I-bisimple semigroups, 230; Homomorphisms of I-bisimple semigroups, 376; Congruences on I-bisimple semigroups. I, 479; On certain right cancellative semigroups mod groups, 597; Congruences on I-bisimple semigroups. II, 619; Bisimple inverse semigroups mod groups. I, 815; Direct decompositions of bisimple semigroups. I, 854.

Wasow, Wolfgang. On the analytic validity of formal simplications of linear differential equations, 344.

Waterman, Daniel. On the summability of the differentiated Fourier series, 363.

Watkins, M. E. On a class of graphs with connectivity 2, 325.

Wechsler, M. T. See Thomas, E. S., Jr.

Weichsel, P. M. Regular p-groups and varieties, 832.

Weill, G. G. Extremal SARIO linear operators, 63.

Weill, L. J. Stability of bases in complete barrelled spaces, 821.

Weinstein, A. D. The conjugate locus and cut locus need not intersect. Preliminary report, 580.

Weinstein, Alexander. An invariant formulation of the new maximum-minimum theory of eigenvalues, 384; On the base problem for integral operators, 861.

Weinzweig, A. I. See Dwinger, Philip.

Weiss, G. L. See Coifman, R.

Weiss, M. L. See Bear, H. S.

———. See Ceder, J. G.

Weissglass, Julian. See Schneider, Hans.

Welch, J. N. See Taam, C. T.

Welch, John. See Bogdanowicz, Witold.

Welland, G. V. Differentiation almost everywhere of a function of several variables, 374.

Wells, J. H. and Kellogg, C. N. Invariant subspaces, 371.

Wells, Robert. Modification of intersections, 141.

Wend, D. V. V. Singularity-free regions for solutions of some nth order nonlinear differen-

tial equations, 65; The growth of solutions of systems of nonlinear complex differential equations, 581.

Wendel, J. G. See Taylor, S. J.

Wenger, R. H. Semigroups having quasi-Frobenius algebras, 633.

Wenjen, Chien. Ring of generalized continuous functions, (g.c.f.), 476; Paracompact spaces, 622.

Wenner, B. R. Dimension on boundaries of $\epsilon$-spheres, 711.

Wenzel, G. H. Note on a subdirect representation of universal algebras, 597; A characterization of v*-algebras, 331.

Wermer, John. See O'Neill, B. V.

Werner, Peter. On the behavior of solutions of Maxwell equations for small frequencies, 249.

West, T. T. Riesz operators, 255.

Weston, J. H. Conditions for a linearly ordered space to be m-compact. Preliminary report, 846.

Whitlock, H. I. On the generality of singly generated Menger algebras. Preliminary report, 587; On generating the full Menger algebra of 2-place functions. Preliminary report, 631; Topologization of B/A-boundedness. Preliminary report, 718.

Whitten, W. C., Jr. On the interchangeability of 2-links. II, 370.

Whyburn, C. T. See Pall, Gordon.

Whyburn, G. T. Loosely closed sets, 628; Peripheral continuity of multifunctions, 717; Factorization of partially continuous functions, 855.

Whyburn, K. G. On a different multiplication for functions on certain locally compact groups, 54; An operational calculus for locally compact abelian groups, 58.

Wicke, H. H. Open continuous images of complete metric spaces, 255; Open continuous mappings satisfying a'completeness condition. Preliminary report, 511; The nonpreservation of Čech-completeness by an open continuous mapping between collectionwise normal $T_1$-spaces. Preliminary report, 601.

_____. See Worrell, J. M.

Widom, Harold. Polynomials associated with measures in the complex plane, 487.

Widom, Harold and Wilf, H. S. Small eigenvalues of large Hankel matrices, 131.

Wilf, H. S. See Widom, Harold.

Wigley, N. M. On the convergence of discrete approximations to mixed boundary value problems, 80; On subtracting offsingularities near a corner for solutions of the Dirichlet problem, 850.

Willett, D. W. On an example in second order linear ordinary differential equations, 239.

Willett, D. W. and Wong, J. S. W. On the asymptotic behavior of solutions to certain second order linear ordinary differential equations, 233; On the behavior of the solutions of some nonlinear differential equations, 473; Boundedness and unboundedness results for some nonlinear differential equations, 490.

Williams, F. D. A necessary condition that an H-space be homotopy-Abelian, 101; Higher degrees of homotopy-commutativity, 581.

Williamson, J. A. Random walks and Riesz kernels, 741.

Willner, L. B. On the Tchebycheff approximation. Preliminary report, 586.

Wintner, D. J. On groups of automorphisms of Lie algebras, 229.

Wisner, R. J. and Hardy, D. W. Dominance semigroups of the modular group, 357.

Wolfowitz, Jacob. See Teicher, Henry.

Wong, B. K. Recurrence of set trajectories in a discrete dynamical system, 361.

Wong, J. S. W. See Ching, Wai-Mee.

_____. See Willett, D. W.

Worrell, J. M., Jr. On collections of domains inscribed in a covering of a space in the sense of Alexandroff and Urysohn, 150; Local completeness and a variation of Arhangel'skiĭ's base of countable order concept. Preliminary report, 510; On compact spaces and Čech completeness, 644; The paracompact open continuous images of Čech complete spaces, 858.

Worrell, J. M., Jr. and Wicke, H. H. Restrictions of uniformly monotonically complete open continuous mappings. Preliminary report, 512.

Wright, F. M. On the existence of the Lane integral, 611.

Wright, F. M. and Smith, K. P. A Lane integral with no summability set which is everywhere dense, 360; On the Lane integral, 617.

Wu, T. S. Continuous automorphisms on locally compact groups, 238; Ergodic automorphisms on compact groups, 345.

Wulbert, D. E. and Morris, P. D. Functional representation of topological algebras, 606.

Wulczyn, Gregory. Linear combinations of normal multigrade equations, 589.

Wunderlich, M. C. See Buschman, R. G.

Yamada, Miyuki and Tamura, T. Notes on finite commutative Z-semigroups, 149.

Yandl, A. L. Strong proximate retracts, 97; Proximate absolute extensors, 353; Proximate homotopy, 477.

Yap, Y. H. On Young's inequality on locally compact groups, 743.

Yaqub, A. M. Semi-primal categorical independent algebras, 72.

Yasuhara, Mitsuru. Some proof theoretic results of unary second order logic, 626.

Yeh, R. T. Weak congruence relations on graphs, 712.

Young, E. C. Solution of a Cauchy problem for the nonhomogeneous EPD equation, 59.

____. See Miles, E. P., Jr.

Young, P. R. A theorem on recursively enumerable classes and splinters. II, 141; An effective operator, continuous but not partial recursive, 859.

____. See Ritchie, R. W.

Young, S. W. Universal continuous functions, 369.

Zaks, Abraham. Residue rings of semiprimary hereditary rings, 641; Semi-primary rings of generalized triangular type, 719.

Zame, Alan. The measure of well-distributed sequences, 822.

Zelinsky, Daniel and Villamayor, O. E. Infinite exact sequences in Galois cohomology, 635.

Zelmanowitz, J. M. Endomorphism rings of torsionless modules over semiprime rings, 117.

Zemanian, A. H. A distributional K transformation, 65; A distributional convolution transformation, 485.

_____. See Queen, W. C.

Zerla, F. J. Iterative higher derivations in fields of prime characteristic. Preliminary report, 816.

Zettl, Anton. Lack of self-adjointness in three point boundary value problems, 84.

Ziemer, W. P. Extremal length and conformal capacity, 384.

Zuckerman, M. M. Some theorems on the axiom of choice for finite sets. II. Preliminary report, 486; Some theorems on the axioms of choice for finite sets. I. Preliminary report, 576; Some theorems on the axiom of choice for finite sets. III. Preliminary report, 620; Multiple choice axioms. I. Preliminary report, 717; Multiple choice axioms. II. Preliminary report, 854.

Zund, J. D. Some theorems on spinor-tensors, 842.

_____. See Robinson, Ivan.

# INDEX
## Volume 13, 1966


ABSTRACTS OF CONTRIBUTED PAPERS, 52, 224, 324, 469, 575, 710, 815

Index of abstracts in Volume 13,

Errata, 263, 513, 646

ACTIVITIES OF OTHER ASSOCIATIONS, 38, 195, 311, 459, 560, 789

ADVERTISERS, INDEX TO, 181, 277, 413, 525, 677, 761, 877

ASSISTANTSHIPS AND FELLOWSHIPS

In Mathematics in 1966-1967, 316
In Mathematics in 1967-1968,

DOCTORATES CONFERRED IN 1965, 431, 568

FEATURE ARTICLES

Annual Salary Survey, 698
Committee on Support of Research in the Mathematical Sciences, 314
Fifth General Assembly of the International Mathematical Union, 794
Flight Arrangements for the International Congress, 39, 198
1966 International Congress of Mathematicians, 312
National Academy of Sciences--National Research Council, 793
New Headquarters Building, 790
Recent Policies Concerning Federal Research Grants, 450
Starting Salaries for Mathematicians with Ph. D., 700

LETTERS TO THE EDITOR

A. N. Feldzamen, 196
S. A. Naimpally, 701
Earl Taft, 196
Benjamin Volk, 37
Alexander Doniphan Wallace, 37

MEETINGS OF THE AMERICAN MATHEMATICAL SOCIETY

Abstracts of Contributed Papers, 52, 224, 324, 469, 575, 710, 815
Calendar of Meetings, 4, 188, 284, 420, 532, 684, 768

Preliminary Announcements

February: New York, New York 28
April: New York, New York, 29, 191; Chicago, Illinois, 30, 194; Honolulu, Hawaii, 193
June: Victoria, British Columbia, 309
August-September: New Brunswick, New Jersey, 304, 425
October: Philadelphia, Pennsylvania, 556
November: Mexico City, Mexico, 430, 558, 689; Tampa, Florida, 557, 687; La Jolla, California, 688
December: Washington, D. C., 691
January: Houston, Texas, 692, 785

Program of Meetings

January: Chicago, 5
February: New York, 189
April: New York, 285; Honolulu, 293; Chicago, 297
June: British Columbia, 421
August: New Brunswick, 533
October: Philadelphia, 685
November: Tampa, 769; La Jolla, 774; Mexico, 777
December: Washington, 784

Supplementary Programs, 48, 219, 321, 464, 571, 706, 813

MEMORANDA TO MEMBERS

Backlog of Mathematics Research Journals 201, 562
Change of Address, 323
Corporate Members and Institutional Associates 202
Employment Register, 323, 456, 570, 695
Mailing of the Notices, 812
Mathematical Society of France Increases Dues 51
Other Journals Available to Members at Reduced Rates, 200
Request for Names of Visiting Foreign Mathematicians, 456
Retired Mathematicians, 695
Subscription Renewals and Address Changes 812
Summer Employment Opportunities, 695

NEW AMS PUBLICATIONS, 40, 460, 569, 70

NEWS ITEMS AND ANNOUNCEMENTS, 31, 32, 190, 195, 197, 199, 202, 223, 313, 315, 320, 424, 451, 452, 468, 563, 567, 568, 574, 696, 701, 796

PERSONAL ITEMS, 44, 214, 318, 457, 564, 703, 806

SEMINARS AND INSTITUTES

Bowdoin Summer Seminars in Algebra, 79
Summer Institutes and Graduate Courses, 203, 316
1966 Summer Institute on Entire Functions and Related Parts of Analysis, 31, 693

VISITING FOREIGN MATHEMATICIANS, 42, 451, 799.